

University News

MONDAY, MARCH 15, 1993

Rs. 5.00

Gulbarga University Convocation



From L to R: Sri M.N. Vijayakumar, Registrar, Sri S.M. Yahya, Pro-Chancellor and Minister for Higher Education, Government of Karnataka, Sri Shivaraj Patil, Speaker, Lok Sabha, who delivered the convocation address, and Dr. N.Rudraiah, Vice-Chancellor of the University.

**NATIONAL DAIRY RESEARCH INSTITUTE
(DEEMED UNIVERSITY)
(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)
KARNAL-132 001 (HARYANA)**

ADMISSION NOTICE - 1993-94

A competitive written examination on all India basis for admission to 1st year B.Tech. (Dairy Technology), M.Sc. Dairying and Ph.D. Dairying in the following disciplines will be held at different centres of the country on 23rd and 24th June, 1993.

A. B.Tech. (Dairy Technology) :

Eligibility : 10+2 or its equivalent examination with Physics, Chemistry, Mathematics and English from a recognised Board/University with 55 percent marks (50 percent marks for SC/ST candidates) or equivalent GPA in the aggregate of Physics, Chemistry and Mathematics

The duration of B.Tech. (Dairy Technology) is four years.

B M.Sc. Dairying in Dairy Microbiology, Dairy Chemistry, Dairy Technology, Animal Genetics & Breeding, Livestock Production & Management, Animal Nutrition, Animal Physiology, Animal Biochemistry, Dairy Economics, Dairy Extension, Dairy Engineering and Animal Biotechnology.

Eligibility : Bachelor's degree with 55 percent marks (50 percent for SC/ST candidates) or equivalent GPA in Pure Sciences, Agriculture, Veterinary Science, Animal Sciences, Dairying, Food Technology, Engineering and Home Science

The duration of M.Sc. Dairying is minimum of 3 years for Graduates in Pure Sciences and 2 years for Graduates with professional degree. However, it will be three years for those admitted to M.Sc. Dairy Engineering with a degree of B.Sc./B.Tech. (DT).

C Ph.D. Dairying in all the above disciplines as in 'B' except Animal Biotechnology.

Eligibility : Master's degree with 55 percent marks (50 percent for SC/ST candidates) or equivalent GPA in Dairying, Agriculture, Veterinary Science, Biotechnology, Pure Sciences, Food Technology, Engineering, Home Science etc.

The duration of Ph.D. Dairying is minimum of 2 1/2 years, which includes one year of course work

Reservation :

Fifteen percent of total seats in each programme are reserved for Scheduled Caste and 7.5 percent

for Scheduled Tribe candidates subject to their being otherwise eligible.

Last date for receipt of applications completed in all respects and accompanied with the prescribed examination fee in this office is 17th May, 1993.

How to Apply : Information Bulletin containing all details along with prescribed application form can be obtained by post from Joint Director, National Dairy Research Institute, Karnal-132001 (Haryana) by submitting a Bank Draft for Rs. 20/-. The Bank Draft should be drawn in favour of "ICAR UNIT, NDRI, KARNAL" Payable on any nationalised Bank at Karnal. Indian Postal Orders or Money Orders will not be accepted. The candidates should also send a self-addressed envelope of minimum size of 20" x 25" with Rs. 3/- worth stamp (Rs. 8/- worth stamp, if required by registered post) affixed and subscribing the course on the left hand top corner. Information Bulletin and Application Form will be available by post from 30.3.1993 to 5.5.1993.

It can also be obtained in person from the Counter of State Bank of Patiala, N.D.R.I. Branch, Karnal against cash payment until 17th May, 1993.

Information Bulletin and Application Form are printed for B.Tech., M.Sc. and Ph.D. courses separately. The candidate while submitting the demand draft for Rs. 20/- should clearly specify for which specific course he requires the Information Bulletin and Application Form

While requesting for Information Bulletin and Application Form following information should be given.

- 1 Name (in capital letters)
- 2 Full address with PIN Code (in capital letters)
- 3 The Course in which the Candidate wants admission (State only one of the following B.Tech./M.Sc./Ph.D.)
- 4 Details of the Bank Draft enclosed i.e. (a) Name of Issuing Bank; (b) Bank Draft No., Date and Amount.

Note : Those who have appeared at the qualifying examinations and awaiting for the final result can also apply. But the marks and result of the qualifying examination should be submitted to the Joint Director, N.D.R.I., Karnal-132001 positively by the date stipulated in the Information Bulletin.

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Editor :
SUTINDER SINGH

PATH TO PEACE FROM ANARCHY TO ANARCHISM

S. Abdul Kareem*

Why is there, almost everywhere, a muscle for destruction and not a mind for creativity? Violence let loose by the present day youth is almost a daily affair. The rampages of the restive youth have not spared any, much less themselves. Broad-minded liberals explain it away by internationalising the issue, while impatient reformers hark back to indigenous prescriptions. Academicians find something endemic in this virulent epidemic. The malady is too deep-rooted for any remedy. This global phenomenon has produced more consuming heat rather than any clarifying light. The outcome is exasperation, total and complete.

At a lower key, how many times are we not confronted with what are mildly termed 'law and order' situations? These are all the culminations of the young men taking law into their hands, instead into their heads! As a result, the world has witnessed one more potential source of power, the student power, more explosive than any that could be had from the hardware of the nuclear arsenals. The energy that this releases is so stupendous that no atomic reactor is worth its job of channelising it. Only education ought to have set in motion a chain reaction – between man and environment – to conserve and contain this ebullient and nascent energy. But our education has failed us. We feel letdown. The students, 'the seedlings of the future' to quote Rajaji, have almost grown into weeds and the flower beds into unweeded gardens. Frustration stalks the ground and desperation looms large. The whole climate of the society is vitiated. The ethos on the home front has to be revamped. The change-over on the part of the youth from the home to the world is fraught with dangers, since the homes have failed to make men of these masses and the world has come to harbour all ideologies, fair and foul. When the passions are whipped up, adolescence bubbles to the brim only to get wasted. Responsible adulthood is nowhere in sight.

Student Activism

This brings us to the oft-repeated question : whether it is desirable for the youth to take part in politics or should they be isolated and insulated, as it were from the strong currents working at cross purposes? Should they not form the advance guard of the political movements? These tantalising questions raise one more doubt : Are these half-informed minds in form? The way they take to the streets is an exhibition of absurdism. The active participation (action packed as it is) of youth, their running parallel parties and organisations have all paved the way to student activism. Much of what they do is in the nature of an insurrection or a rebellion, not a revolution, guided as they have been by their instinct and not by sound doctrines of social change. Prolonged as these are beyond reasonable limits, they have shown signs of adopting them as regular ways of life. It is no wonder they engender new ways of dying. Revolutions, rare as they are, are welcome sometimes as extreme remedies to cure the ills of the society. But they cannot bid fair to become their daily bread, in the words of Burke. No one can deny the presence of rebellion at the basis of these struggles. No less a thinker than Albert Camus confirms that rebellion recreates moderation as a necessity in consequence even as a storm does yield to calm.

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Hence the right attitude should be to give oneself to political thought and not to political action – in a way, to a life of thought rather than of action, though the latter cannot be lost sight of. How many of us are capable of venturing ourselves in the adventure of ideas? The clash of ideas could be more thrilling than the clash of armies, if only we take to the liberal methods of debate and discussion. Knowledge must precede action if our doings are to be deeds and not misdeeds. It is all a question of timing our programmes, what otherwise would be too hasty, too ill-formed and too unadvised.

This may sound yet another platitude fit enough to be pronounced from the house tops. A closer look, with insight and imagination, would reveal the predicament of an intellectual in a society he thinks he cannot better, against which he stands pitted. The young mind imbued with idealism of the world of books, sees in his society a travesty of his ideals, a tragedy of his dreams. The intellectual, feeling desperate like Hamlet, would sigh out: 'Oh cursed spite that I was ever born to set it right'. When he takes to action and comes out into the streets, becomes one with the irate crowd, he loses his name and identity. Nothing short of action, mass action, may direct action satisfies him. When passions run amuck, this mass may turn ruthless. It was Goethe who said: 'A man of action is always ruthless; no one has a conscience but an observer.'

The turbulent youth riding rough shod over this mounting wave are compelled to jump into the fray as they see the prevalence of double standards in their elders. Conservatives to the core in politics and economic affairs, these elders, giving themselves moral holidays in metropolitan cities, become liberals in morals. This double dealing has, ultimately to be traced back to the wealth, the source of all possible friction. The burning idealism of the youth has seen this deterioration in the norms of public life. It is because of this they are up in arms for the causes deserted by their elders. Hence consultations and counselling are thrown overboard and confrontation has come to stay. Violence has paid dividend and acts of violence have become the order of the day. Armed with unaccountability, the unleashing of the brute force is complete creating a nightmare in the broad day light!

Anarchism

Of late there have been attempts to bolster up a philosophy to countenance the challenges of critics that youth action is all action minus principles. Hence anarchy has made out a case for anarchism to give content to their action and a meaning to their muscles.

What, after all, is this anarchist thinking that has been so eulogized and extolled? Western parallels, though they come handy, are far from being healthy. Anarchism is a philosophy of a new social order based on liberty,

unrestricted by man-made laws. To some extent, it appears to be akin to wild Bohemianism, since it welcomes gay disorderliness of life, cheerful bad manners. With Dostovski, Baudelaire and Rimbaud, the irrational impulse has become largely accepted in total contravention to progressive elimination of the evil.

To some, anarchism constitutes the politics of the absurd. It states that all forms of government rest on violence. The state stands devalued and becomes almost an anachronism. It becomes the biggest stumbling block. It is no longer deified, it is defied. A definitive withering away of the state is, no doubt, Marxian, but a total denial is anarchistic. The individuality of man is inflated to the bursting point like the frog in the fable. Organised authority becomes, irksome. Parental pieties are fluted, conventional conformity is thrown overboard. The rule of law is resented.

Strangely enough, the anarchists justify their stand that anarchism is the answer to the ills of the society badgered and battered by social law and corrupt practices, quoting authoritatively the traditions of Thoreau, deliberately omitting the pronouncements of Nietzsche. Since liberty is guaranteed by law, the anarchist prefers freedom to liberty. To him freedom is essentially a positive condition. A little digression into the etymology of the word 'freedom' is quite interesting. The word 'free' is derived from the Old English *f r ē o n*, which means, to love, (Sanskrit *Pri*, to love) and therefore it means a friendly attitude. Liberty is a legal phrase derived from Latin and is used to describe the emancipation from the masterslave relationship. Anarchism, from this stand point, is not merely a religion of liberty but a faith generated by freedom.

Why is it that the anarchists are hostile to laws except their own? They seem to take their cue from Rousseau who held that 'laws are useful to those who own, and injurious to those who do not. Laws give the weak new burdens and the strong new powers.' To them, legal strictures are the very antithesis to liberty, rather its very negation. They resent the very functioning of the state as against individual freedom with the result that of the state has been brought to the vanishing point. This theme of the total abolition of laws was dear to Godwin and sung by Shelley to whom the state was 'the coldest of all cold monsters'. Proudhon, the sworn anarchist has proclaimed that 'the government of man by man in every form is slavery.' A host of other luminaries, Whitman, Thoreau and Emerson had subscribed unequivocally to the Jeffersonian ideal that 'that government is best which governs the least,' nay, which doesn't govern at all!

An anarchist is not a rootless being, but he has enough authority to buttress his shaky edifice. Taking the famous phrase of George Santayana, Will Durant

argues that 'everything artificial has a natural origin, and everything natural has an artificial development. Expression is natural, language is artificial; religion is natural, the church is artificial, society is natural, the state is artificial.' Durant's fine eulogy of anarchism culminates in the climax: "We are anarchist by nature and citizens by suggestion."

What is without a ruler, as is made out from the root meaning of anarchism, surprisingly is not without order. It has its own sense of order. However, this does not mean that the rule of anarchism can be a substitute to the rule of law. The rule of anarchism has inherent contradictions, since anarchism means a society without an 'archkos' that is to say, without a ruler. And a rule without a ruler is not rule at all.

Proudhon advocated that the highest perfection is to be found in the union of order and anarchy. The rule of law as prescribed by the state should come nearer to the laws of nature. The vast potentialities of nature could be commanded only by obeying its natural laws. The coming together of these apparent irreconcilables – order and anarchy – could fashion an utopia. In such a society of utopian idealism, one can visualise men working according to their abilities and receiving according to their needs. Would this not make cooperation a sound basis and egalitarian society, a reality. The real villain in such a realm is the wealth and property that the state is called upon to protect, which in turn is the source of all inequities. It is in this context that the state becomes its 'night watchman'. Thus anarchism bids fair to create the health of the nations, though not the wealth.

Much of our present lawlessness may be the result of law being thrust down man's throat restlessly. Force is repression and repression leads to sharp reaction. Such programmes of legislation resorting to repressive measures herald doom to the individual though a boon to the state. A little too much of the law, we convert a half-hearted sinner into a confirmed criminal. The tensions which such successive legislation creates, causes frayed nerves, the very prospect to be dreaded if we heed to Russell. Shall we not caution the law-makers to be a little more considerate with that law-breakers? If one is to deal with them with insight and imagination, should one not practise moderation? Too much of disciplining from above could be nearer to tyranny even as the total lack of it could be nearer to chaos. Governing with love, as enjoined by Láo Tsu, of course, is ruled out in modern times. Where enforcement has not yielded any appreciable dividend, it is wise to repose our trust in moderation. Instead of blind enforcement of laws, it is advisable to allow these to become a force of habit, if not a passion.

Having a recourse to such remedies is more to be desired than to be had. To expect the irate youth, given to doing things as they like, to cultivate tolerance, charity

and compassion is to ask for the impossible. To initiate a chain reaction between adherence to law and a corresponding inner transformation is highly desirable but unfortunately it is not so easily made possible for the mere want of know-how. Obviously laws deal with external action and morality with the internal and hence intangible ways of behaviour.

Baffled with such dilemmas, the half-informed ones find themselves in a blind alley, the ill-informed on the streets rioting and some rotting. All this happens in the crowded towns and metropolitan cities which breed anonymity. It is in this melting pot that the youth have lost their individuality, which has made room for psychosis. De-individuation, coming close on the heels of loss of their identity, drives them to destructive behaviour. Moreover, our education has created a rift between life and learning. As a result, the youth feel alienated from the society, estranged from themselves.

Role of Education

A change over from anarchy to anarchism amounts to jumping from the frying pan into the actual fire. Neither can spell sanity. To counteract these evils, perhaps, there is nothing that we can fall back upon except education. It is education, education alone that too of the right type that can lift us out of this present morass. Education has done, at least to some, all that it could to help develop individual uniqueness. But simultaneous with this, education has a social function too. The sophistry of our unimaginative yet prestigious education has widened the gap between the educated ones and the less fortunate segments of society. How could there be any 'social contract' when the living contact itself is thus broken? Our education must generate social consciousness, for it is not only a process of individuation, but also of integration which, in the words of Herbert Read, 'is the reconciliation of individual uniqueness with social unity'.

There is nothing of a participating spirit on the part of the individual in our democracy. It is not that an adult is important only once in five years. The need of the hour is as much to involve the people in the task of economic development as in creating public opinion for effecting an orderly social change by harnessing the unleashed forces of organised disruption and personal denigration. A war effort is what it is, directed towards attaining a particular goal, because of the sense of the participation and the people's involvement in it. The reconstitution of the youth in the society must be tackled on a war footing. Education can be a potent force creating this new awareness and forging the new links. It is for the government to realise that its function is not merely to legislate but also to educate.

OF VICE-CHANCELLORSHIP AND VICE-CHANCELLORS

M.J. Savadatti*

Indian Vice-Chancellorship is a reactive job. Vice-Chancellors define their role as a responsive one. They worry about the concerns of government, community leaders, students, faculty members, law enforcement officials. They see themselves as trying to reconcile the conflicting pressures on the university. They allocate their time by a process that is largely controlled by the desires of others. Though they are, for the most part, individuals of considerable energy, they often become tired.

The Vice-Chancellorship is a parochial job. Vice-Chancellors are normally not strangers to the institutions that choose them. Although they have typically worked in one or two other universities, the universities are similar in type and close in geography. Insofar as a Vice-Chancellor compares his performance with other Vice-Chancellors, he tends to compare it with a group of Vice-Chancellors who are in his own experiential "neighbourhood." Insofar as he is visible through the media, he is ordinarily visible only to his local community.

Vice-Chancellors are academics. Their careers are almost entirely in academic institutions; their values are those of academe. The details of their values vary considerably. The academic creed of a small, marginally surviving subject related school is not the same as that of a major prestigious university, and Vice-Chancellors reflect that variability. Since the academic creed is not completely different from the general organizational creed, Vice-Chancellors are similar in many ways to administrative heads of other kinds of institutions. Nevertheless, they are recognizable as products of academe.

The Vice-Chancellorship is conventional. The Vice-Chancellor comes to his job through a series of filters

that are socially conservative vis-a-vis his major constituents. He sees his job in the standard terms reported in the academic and management literature. He allocates his time in response to a series of conventional expectations. He leaves and enters his job in a manner that has strong normative components. The Vice-Chancellor cannot effectively argue with conventional claims on him; nor does he really wish to do so. His actions, his activities, and his self-perceptions are constrained within social expectations that he accepts as essentially legitimate.

The Vice-Chancellorship is important to the Vice-Chancellor. It is the peak of his career. He obtains the job as a reward for his previous record. It is the best job he has ever had or is likely to have. It is a mark of his success. His self-esteem depends on being viewed as a good Vice-Chancellor, but his reputation depends on the reputation of the university more than it does on his activities as Vice-Chancellor. Although the route to the job is clearly not random, each Vice-Chancellor's "career" tends to be a post factum construct. Typically, each stage of his career is a relatively discrete event produced by a vacancy.

The Vice-Chancellorship is an illusion. Important aspects of the role seem to disappear on close examination. In particular, decision making in the university seems to result extensively from a process that decouples problems and choices and makes the Vice-Chancellor's role more commonly sporadic and symbolic than significant. Compared to the heroic expectations he and others might have, the Vice-Chancellor has modest control over the events of university life. The contributions he makes can easily be swamped by outside events or the diffuse qualities of university decision making.

In a way, these major features of the Vice-Chancellorship and Vice-Chancellors need to be elaborated and interpreted within an understanding of the university as an organization. It belongs to a class of organizations that can be called organized anarchies.

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The university is a prototype organized anarchy. It does not know what it is doing. Its goals are either vague or in dispute. Its technology is familiar but not understood. Its major participants wander in and out of the organization. These factors do not make a university a bad organization or a disorganized one: but they do make it a problem to describe, understand, and lead. As the head of such an organization, how can a Vice-Chancellor set specific organizational goals? What can he accomplish? How can he use his experience? And finally, how does he measure his success or failure?

With respect to a behavioural theory of organization, we need to investigate two major phenomena that are critical to an understanding of the kind of organizations described above. First, we need a better understanding of the processes used to make choices without the guidance of consistent, shared goals. It is clear that organizations sometimes make choices without clear goals. Decision making under ambiguity is common in complex organizations, particularly those outside the sector of private enterprise. Decisions appear often to be made without recourse either to explicit markets or to explicit bargaining (the two processes most commonly cited as procedures for decision making in the absence of consensus). Second, we need to study the process by which members of the organization are activated, by which occasional members become active ones, by which attention is directed toward, or away from the organization. Not everyone in an organization is attending to everything all the time; and we need to understand how to predict the attention pattern within the organization.

With respect to normative theory, organized anarchies pose three major problems. First, we need to develop a normative theory of intelligent decision making in situations in which goals are unknown (i.e. under ambiguity). Can we provide some meaning for intelligence that does not depend on relating current action to known goals? We are convinced it is possible. We are far from certain what the theory will look like. Second, we need a normative theory of attention. Managers and others who might participate in an organization operate within the constraint of a scarce resource – the attention they can devote to the various things demanding their attention. In organizations such as those described above, in which a substantial part of the variability in behaviour stems from variations in who is attending to what, decisions about the allocation of attention are primary. Third, organized anarchies require a new theory of management. Much of our present theory of management introduces mechanisms for control and coordination that assume the existence of well-defined goals and technology, as well as substan-

tial participant involvement in the affairs of the organization. When goals and technology are hazy and participation is fluid, many of the axioms and standard procedures of management collapse.

The world may collapse tomorrow; it may not. The university may survive another ten years; it may not. The differences are important, and the problems are serious. But the outcomes do not much depend on the Vice-Chancellor. He is human. His capabilities are limited, and his responsibility is limited by his capabilities. We believe there are modest gains to be made by making some changes in the perception of his role. We believe Vice-Chancellors can be more effective and more relaxed. We do not believe in magic.

(This is adapted from the book 'Leadership and Ambiguity – The American College President' by Michael D. Cohen and James G. March published in 1974. It is rather surprising how the article fits Indian Vice-Chancellors in 1993 – almost after 20 years!.)

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Value Inculcation Through Teacher Training

J.S. Rajput*

The paramount concern of universalisation of elementary education is to improve the quality of human life. In our context, considerable efforts are still needed to achieve the goal of providing basic education to all children in the age group 6-14 years. The expansion of education has also to be coupled with relevance of curriculum and quality of education imparted. These aspects are receiving attention at policy level as well as at the implementation level. It is now well realised that education has to be much more than preparing the learners to pass certain examinations. It has to prepare 'people' who would respect others around them. This respect, regard and understanding would extend to the cultural heritage, religious multiplicity and faith in the values that are enshrined in the Constitution of the country.

The quality of education would be linked to the way teacher training institutions function in the country. There are more than 1200 training institutions for elementary stage and more than 500 for secondary level teachers.

DIETs

A major initiative was taken in 1986-87 to strength and restructure teacher education in the country. The intention was to augment a large number of these institutions with necessary equipment, building and faculty. This could enable these institutions to function as resource centres and provide quality training to the trainees. The most significant component of this initiative was upgradation of teacher training institutions for elementary stage in each district of the country.

The District Institutes of Education and Training (DIETs) are being set-up to provide academic resource support to all aspects of school education at the district level. These are to assist in successful implementation of various strategies and programmes being undertaken in the areas of formal, non-formal and adult education. These have been perceived as pace setting institutions that would contribute through excellence in the institution's own tasks and through providing necessary

help and assistance to the elementary and adult education systems in achieving 'excellence'. DIETs are supposed to prepare pre-service teachers for primary and upper primary schools, professionally equip those already in job and assist them in meeting their professional and academic needs. Eventually it is teachers' performance which is crucial to the teaching learning process. Teachers implement policies 'as much through their personal example as through the teaching learning process'. The Education Commission (1964-66), popularly known as Kothari Commission, echoed the same concept when it remarked that 'the quality of training institutions remains, with a few exceptions, either impeded or poor'. The establishment of DIETs under a centrally-sponsored scheme in 1986-87 could very well be interpreted as a realistic and objective appraisal of the situation prevailing in training institutions. It was a much needed initiative to meet the changing needs of the systems responsible for extending the outreach of elementary education and adult literacy. 307 such institutions have already been approved and more than half of these are already operational. In addition to the establishment of DIETs, the colleges of teacher training are also being upgraded. More than forty colleges and university departments have been provided assistance from Government of India and are now functioning as upgraded Colleges of Teacher Education or Institutes of Advanced Studies in Education. These could upgrade the quality of training at secondary and senior secondary stage. Further, these could provide necessary research inputs, considered so crucial for training strategies, curriculum development and other areas.

Strategies for Value Inculcation

The mission, role and functioning of these institutions are gradually taking shape in actual implementation. To achieve excellence, one crucial aspect would be the emphasis laid on standards being set by the staff through personal example and through the strategies adopted for value inculcation. There has been a global acceptance of the need to strengthen the content of education relating to humanistic, ethical, moral and cultural values in education, both in formal systems as well as non-formal systems. It is generally being accepted that solution to some of the most serious crises, such as, environmental policy, consumerism, family wel-

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care, discrimination, poverty, exploitation and marginalisation of people are to be found not only in eradication of ignorance about these crises through knowledge change but also in regard to the preparedness to face the intrinsic moral and values issues.

The teachers and teacher educators are normally not unfamiliar with the need for value inculcation. Values permeate the entire process of education at each stage and age. It is also clear that school education alone could not be assigned the total responsibility of value inculcation. However, institutions like DIETs, could contribute effectively with an eye on the multiplier effect. Such institutions need to remain ever conscious of their primary task of assisting in value formation and in value inculcation. While individual teachers could adopt their own strategies, an institutional plan could also be developed and implemented without much need for financial inputs or resources. The components of such an institutional plan could include the following :

- i) A critical look at the curriculum materials from the point of view of potentialities and possibilities of utilising these towards value enrichment without affecting the adopted teaching learning strategies;
- ii) Identify and organise co-curricular and extra-curricular activities which help in value education by observation, experience and inference. There is no need to publicise these as value inculcation efforts;
- iii) Learner and faculty interaction to appreciate and understand innovations and initiatives of voluntary efforts. Those working voluntarily for the deprived and downtrodden could also join in some of these interactions;
- iv) Utilisation of available folklore, national monuments, forms of folk culture and indigenous expertise to imbibe a sense of belonging and pride;
- v) Critical analysis and discussion amongst the peers and with the knowledgeable could lead to appreciation of rationality and acceptance of positive impacts of science and technology. Environment, energy, pollution, population and such other areas could be the talking points;
- vi) Utilisation of community resources and expertise through intensive interaction by making the community feel that the institution works for them and that it is functioning for improving the quality of life in general and through the instructional strategies in particular;

- vii) Providing interaction opportunities with persons of unimpeachable character, creative abilities, literary tastes, scholarly attitudes whose mere presence could motivate others;
- viii) Developing an interactive environment in the institution which nurtures response for knowledge, scholarship, learning and willingness to take responsibilities. Participatory programme like dances, dramas, debates sports in which both the staff and the students participate could enliven the atmosphere;
- ix) Make the institutions responsive to emergent situations like floods, fire, drought, etc. This would strengthen mutual relationship with the society;
- x) Visits to institutions, establishments, centres of creative arts, zoos, museums and to homes for the aged and handicapped not only enhance knowledge, understanding but also generate appreciation and empathy;
- xi) All functions, programmes, celebrations, gatherings need to ensure that no group or community feels neglected or isolated;
- xii) Cleanliness within the institution helps, in a big way, every individual. Development of aesthetic sensibilities is a basic imperative of individual preparation;
- xiii) Examples from social life of the institutions and community that reinforce human aspects of individual efforts and group efforts need to be disseminated and discussed. These create a lasting impression; and
- xiv) It is always possible to innovate new techniques and methods to understand the changes taking place in a particular society. The stress they are creating on the established traditional values also needs to be monitored continuously. This indicates the need for a regular programme of developmental and action research in the institution.

These are some of the possibilities. Several others could be identified depending on the specific needs and requirements of a particular institution. The faculty could sit together and evolve a plan of action on the yearly basis. It could also be possible to assess the outcomes of the efforts at the end of the year. The Head of the Institution could help develop an annual plan. This may be discussed with all the teachers before its finalisation. The group may subsequently meet at least once a month to monitor the outcomes.

Professional Development of Teachers in Higher Education in India and Abroad

J.N. Kapur*

What is Professional Development of Teachers ?

The professional development of a teacher essentially consists of three components :

- a) *Development of pedagogic skills of the teacher* i.e. he should become a better communicator of knowledge with every passing day by utilising all the present day knowledge of psychology of learning, use of audio-visual-aids etc. aiming at optimum learning by the students.
- b) *Development of mastering of a subject by the teacher* i.e. he should become a better and better expert in his subject with every passing day. The teacher has to know much more than what he is teaching and know it in great depth. He has to constantly grow in knowledge by his own efforts and also through summer schools, refresher courses, conference and symposia. Knowledge of every subject is growing exponentially and teacher's knowledge of his subject should keep pace with this exponential growth.
- c) *Development of the teacher as a member of the teaching profession* i.e. a teacher should grow in his pride in the nobility of the teaching profession, in his love and sympathy for his students and in his desire to give his best to the profession through his active participation in conferences and symposia, both in pedagogy and in his own discipline. He should not only do research in his subject, but he should also develop a research attitude in his teaching.

Ideally a teacher must learn something new almost everyday, teach something new almost everyday, teach even old topics in a new way almost everyday and should create some new knowledge almost everyday. For professional development, a teacher should continuously grow in each of the three components.

In the subsequent sections, we shall review some efforts for professional development of teachers made in India and abroad in recent years.

First Efforts in India : Summer Schools for Teachers

The first summer schools in India and USA were organised at the same time, but while in USA these were organised by the National Science Foundation (NSF), in India these were organised by the voluntary efforts of the teaching community.

In the early 50's some of the teachers of mathematics in Delhi University organised a study group which met every Sunday in different colleges in the university and in this way they learnt a number of new branches of mathematics through their own efforts. Their success encouraged them to extend this activity to all India level. A group of four of these teachers organised the first summer school of mathematics in 1958. On behalf of this group, I wrote to all teachers of mathematics all over the country to come to learn new topics and invited professors and research scientists in Delhi to give the lectures. The response was enthusiastic. About 40 teachers from all over the country agreed to come on their own expenses. One of us who was Principal of a college allowed the free use of his hostel and lecture halls, but the participants had to meet their own travel costs and boarding expenses. The resource persons all agreed to give lectures without charging anything from us; in fact they all agreed to meet their own travel costs. We volunteered to meet the contingency expenses including postage, cooling arrangements and cyclostyling expenses ourselves. Later the then Vice-Chancellor of Delhi University, Dr. V.K.R.V. Rao, who came to inaugurate the summer school felt unhappy that the teachers should spend their money and he on his own recommended that the UGC should reimburse the total expenses of Rs. 1600/- we had incurred for a summer school of six weeks.

Dr. Rao was very enthusiastic to find that teachers had organised themselves to work for their own professional development without waiting for any initiative on the part of the university or the UGC. He felt that it was a happy augury for higher education in India and hoped that this voluntary movement will ultimately involve all teachers in all subjects in all universities in India and university campuses will hum with professional development activities during summer months.

We organised six summer schools from 1958 to 1963 in the same ways and the total money spent by the UGC for these six summer schools was about 10,000/- rupees.

* *Jawahar Lal University and Mathematical Sciences Trust Society, C-766, New Friends Colony, New Delhi - 110 065.*

About 200 teachers were trained in this process. Most of them later became professors of mathematics in Indian and foreign universities.

In 1958 itself the National Science Foundation in USA had started summer schools for teachers in mathematics, physics, chemistry and biology and these were highly successful. The U.S. government offered in early 60's to utilise the huge PL-480 funds to help in organising summer schools in science subjects in India and from 1962 onwards a large number of summer schools for both school and college teachers were organised all over the country. In each of these schools, TA and DA was provided to the participants and TA and honoraria were paid to the resource persons. Each school involved an expense of about Rs. 50,000, besides the salary and travelling expenses of two foreign consultants provided to each summer school by the US government, as its help to India. Later the British Council also helped in organising summer schools.

There was tremendous summer school activity for a number of years and large number of teachers were exposed to modern ideas. They helped many boards and universities to modernise their curricula.

We discontinued our series of voluntary summer schools after 1963, because we could not ask the teachers to spend their own money, when government was prepared to meet all the expenses.

However, in this process a large number of non-serious teachers also attended the summer schools. They showed more interest in mess arrangements and sight seeing than in the academic programmes. They either did not learn much or they forgot whatever they learnt very soon. When some of them were later interviewed for promotions, it was found that many of them had forgotten almost everything, if they had learnt something at all. This brought a bad name to the summer school movement. However, even in the case of these teachers, the summer schools had one good effect. These broke down the resistance to change, and syllabi could be modernised more easily. However serious teachers did benefit a great deal and they became the agents of change.

Partly because of unfavourable reports about most schools, partly because of the fact that almost all interested teachers had already attended the schools and partly because of withdrawal of foreign support for these schools, the summer school movement came to a sudden end.

As an example of break down of the resistance to change, I would like to mention the summer schools I organised for Agra and Meerut universities mathematics teachers. When I joined IIT, Kanpur, I formed a Kanpur Mathematical Society, a self-study group of Kanpur college teachers on the same lines as the earlier

Mathematics Seminar, the self-study group of Delhi University college teachers. These teachers themselves took the initiative in organising a summer school for Agra University teachers with financial assistance from UGC, and academic assistance from IIT, Kanpur. The teachers trained in these summer schools later forced the Agra University Board of Studies which consisted of some die-hards to change the curricula. Some of the teachers belonged to colleges which later became a part of the newly established Meerut University. These teachers persuaded their Vice-Chancellor to approach me for help, and I agreed to organise three summer schools for Meerut University mathematics teachers. In all these, the teachers learnt in depth mainly the topics they were teaching or those topics which were freshly introduced into the curriculum. I have mentioned these 10 summer schools in Delhi, Kanpur and Meerut, not because I organised them, but because in all of them the initiative came from the teachers themselves. There was a high degree of motivation of the participants in the university and the UGC only provided some encouragement.

I am convinced on the basis of these experiences, that real professional development of teachers can take place only when teachers themselves take the initiative through their professional subject teacher association (not the present teachers associations which are mostly trade unions) and the UGC only agrees to financially support such initiatives.

The Second UGC Effort : The Faculty Improvement Programme

Though the summer schools were over, the need for faculty development still continued, and the UGC appointed an Advisory Committee to advise it on the best method of improving faculty personnel. I happened to be a member of the Committee which also consisted of six or seven other university professors. I suggested that the programme should consist of training of undergraduate college teachers in

- 1) Implementable pedagogic skills;
- 2) Training in the undergraduate courses in depth;
- 3) Training in history, culture, excitement and relevance of the subject they are teaching;
- 4) Training in some topics which are likely to be taught in undergraduate courses in the next 4 or 5 years or which may be taught as optional courses;
- 5) Training in some practical job-oriented courses related to their subjects; and
- 6) Training in course organisation, development of curricula, formation of professional groups etc.

My colleagues all agreed that these are all useful, but ruled these out on the following grounds :

- a) Few of the university professors are competent to give this training as many are not teaching undergraduate classes and have not given serious thought to pedagogic matters; and
- b) Teachers could be inspired by exposure to research and they could easily guide teachers for their Ph.D. degrees which will also lead to improvement of qualifications and increase of self-esteem by the teachers.

The proposal for training teachers for Ph.D. was approved. Each teacher was given three years study leave with full pay towards his Ph.D. degree. Quite a large number of teachers go their Ph.D. degrees in this process, at heavy expenditure to the UGC. A few teachers even misused the grant by registering for a Ph.D. degree in their home town and doing practically no research, since in our system there is no course work and only a certificate from the supervisor and reports from two sympathetic examiners are needed. However, many teachers made good use of the opportunity and did serious research work. But, after their Ph.D., they either shifted to university departments or became dissatisfied teachers in their earlier colleges, because there were no facilities for research in their institutions. On the whole, the colleges did not benefit from this expenditure and in fact in some cases they suffered because teacher became dissatisfied and therefore, worse teachers. The university professors who guided them benefitted, individual teachers benefitted, there was some benefit to research, but it was not commensurate with the expenditure involved. The scheme was almost given up after sometime.

The UGC's Third Effort : The Academic Staff Colleges

Arising out of the recommendations of the Mehrotra Committee report and the New Education Policy document, the UGC established 46 Academic Staff Colleges for carrying out

1. Orientation programmes for fresh teachers; and
2. Refresher courses in individual disciplines for more experienced teachers.

There has been no serious evaluation of the impact of these colleges on the university system but the benefits have certainly been commensurate with the modest expenditure per teacher involved.

The evaluation of every course by the participants is usually very favourable, because the participants are exposed to number of eminent educationists and leading subject specialists in a short time and they are naturally impressed.

The Mehrotra Committee had recommended promotion on the basis of satisfactory performance in two courses. However later this requirement was watered

down to attending two courses. There was motivation for attending the courses but no motivation for really understanding what was taught in these courses, and as such the impact on classroom instruction could not be measured.

In many refresher courses, the course director chooses the subject of his interest, writes to some of the experts to give advanced lectures on the subject. These experts again talk on their own research interests or on allied topics and try to make them understandable to the participants. Due to the eminence of the professors, the teachers listen to their lectures with all respect, but there is no assessment of how much the teachers follow the lectures. In some cases, no lecture notes are given to teachers to follow up the subject matter.

The success of a refresher course should be measured not by the success of teaching, but by the success of learning. As such the teachers may be requested to sit in a test, not for measuring their individual achievements, but for measuring the success of the course.

Alternatively, each participant may be selected two or three months in advance and given one or two topics on the subject of the course to prepare himself. He may be given all necessary references for preparing the topic. During the course, each teacher participant should speak for one or two hours on his topic in the presence of other teachers and resource persons. This will help them in developing the habit of learning on their own and develop an appreciation for what they have been taught by the resource persons. In fact resource persons should confine themselves to giving deeper insight into the topics which the teachers have prepared. Of course this will mean hard work for both teachers and resource persons, but this will produce results.

Other Efforts at Faculty Improvement

A) *The Quality Improvement Programme for Engineering College Teachers.* The programme conducted at IITs and Roorkee University for training teachers in modern areas of science and technology has been quite useful.

B) *The Summer Schools organised by Department of Science & Technology.* The High Energy Physics Group has organised a number of summer or winter schools for research workers. Each time a topic is chosen a year in advance, resource persons are selected and requested to prepare lecture notes in time. The participants are also selected in advance and receive guidance as to what they should read before they come to the school. The lecture notes after being delivered in the schools are updated and published as books.

We require such programmes for all research scholars. The UGC has been concerned with poor

quality of Ph.D. theses. Many supervisors who guide research are not equipped to give training in breadth necessary for research. Many universities do not require course work. Under these conditions summer schools for research workers in individual subject disciplines are necessary and the UGC should organise these in a systematic manner.

Efforts in Some Other Countries

I visited eleven Australian universities 20 years ago at the invitation of the Australian Vice-Chancellors' Committee, and I found a Higher Education Unit in every university. Each unit organised discussions and seminars on examinations, evaluation, course development, audio-visual teaching aids role in teaching etc. in which teachers themselves participated actively and learnt from one another's experience and from experts.

These units also provided assistance to any teacher who wanted to improve his pedagogic skills. Experts helped him to improve his lesson plans and style of presentation. Sometimes his lectures were recorded on cassettes and later discussed with him by the experts in pedagogy as well as in the subject concerned.

The most important fact about these Units was that they come into being because of the demand of National Student Union in Australia. The Union felt that teachers were neglecting teaching and devoting more time to research which brought them professional recognition and grants. The students insisted that teachers must give more time to teaching and teaching must be given more importance in promotions.

The student reaction surveys were accordingly given serious consideration and so teachers were motivated to improve their teaching. Not only poor teachers but even good teachers sought advice of these Units because in this system a teacher who was excellent in teaching but average in research could also be promoted to a professorship.

These surveys provide a good motivation for improvement of teaching in most Western countries. During my visits abroad, I always meet otherwise distinguished professors who feel miserable because their students rate them low in teaching. Most foreign universities also give Distinguished Teacher Awards and these are highly publicised activities.

In some universities teaching, research and community service are put on an equal basis. For promotion, a person has to be excellent in atleast one of these activities and above average in the other two. An excellent research worker may not be promoted unless he is above average in teaching.

In U.K., the grants received by a university depend on its performance in both teaching and research. Also students tend to go to those universities which have good reputation in teaching. Since students fees make a substantial part of the budget of a university, every university has an inbuilt motivation to keep its teaching standards high and give all encouragement and incentives to good teachers.

Distance Mode in Professional Development

There are more than 250,000 teachers in colleges and universities in India and though they may all be covered in some sense by Academic Staff Colleges over a period of time, the progress will be slow and will not be in sufficient depth.

Since teachers are all mature persons, they can benefit a great deal from open university courses. The open university may offer 4 or 5 courses in history, psychology, philosophy and pedagogy of education and 10 to 20 courses in each individual discipline. A teacher may choose the courses, he may like to study and the teacher may be given incentive for the courses he completes. One advance increment may be given for every four semester level courses completed and for 8 or more courses completed a diploma or a degree may be given.

The advantage will be that teachers may prefer to sit in the examinations of this type rather than in normal examinations.

We have also to remember that higher education can improve only if secondary education improves, and teachers of secondary education can also improve through the open education mode.

The present Academic Staff Colleges can serve as contact centres for the open university courses.

Concluding Remarks

Before we launch any new programme, we should learn from the experiences of our own earlier programmes, and from the experiences of other countries. The cost-benefit analysis of each alternative programme should be done before choosing one or more programmes for adoption.

We have, however, to remember that we shall have good teachers only if the government, the society, the academic community and the students all place a high premium on good teaching. We shall not have good teaching if we only pay lip sympathy to it without the students, teachers and government really wanting it. Let us all search our hearts and see how much we care for good teaching.

The Purpose of Education

Shri Shivraj V. Patil, Speaker, Lok Sabha delivered the Convocation Address at the 11th Annual convocation of the Gulbarga University. He said "Education should make man broad minded and capable of looking into the distant future. It should not make him selfish or narrow minded or parochial or bigoted. An educated man with a selfish heart and narrow minded approach towards life is going to be a more dangerous than an uneducated person. The bloodshed, the hatred that we see in the society today in India and other places, is the result of the half educated persons' approach towards life and his selfishness. Excerpts

It is in these areas, which are dominating the horizon of the world of knowledge and wisdom, the universities have to carry on their activities to keep pace with the present world and to meet the demands of the future.

In the world of science and technology, studies in the fields of Electronics, Genetics, Photonics, Materials and Space are going to be of great importance. Our universities would do well if they would gear up their capabilities to acquire mastery in these fields.

However, in the next century and may be in the centuries thereafter, material sciences and technologies may not be able to solve all the problems of humanity. The problems relating to the minds of human beings are going to be more complicated and difficult to solve. It would, therefore, be wise to pay enough attention to the subjects which are put in the category of humanities also. In fact, as time passes and the space everywhere becomes easily accessible and mixes into the time, the studies about the inner world of human beings would become more important and urgent.

In fact, the approach towards education needs to be synthetic and

holistic. Fragmented approach may not be able to cope with the new challenges and new times. As to how that can be done is going to be a daunting question, not easy to solve; for the time in man's life is going to be short and faculties of understanding and grasping of ordinary man are going to be limited. The real challenge of the education is going to be in this field.

The methods of teaching students followed upto this time may not be able to cope up with the new demands and requirements. They have to be modified and improved upon and should include the new instruments and equipments in the shape of audios and videos, computers and satellites and modern communication systems.

The strength and the capabilities of the universities are going to depend upon their willingness and plans to adopt the new methods of imparting knowledge and wisdom to the students. The sooner the universities apply their attention to these aspects, the better would it be for them.

Education should make man broad minded and capable of looking into the distant future. It should

not make him selfish or narrow minded or parochial or bigoted. An educated man with a selfish heart and narrow minded approach towards life is going to be a more dangerous than an uneducated person. The bloodshed, the hatred that we see in the society today in India and other places, is the result of the half educated persons' approach towards life and his selfishness.

If a person is not capable of behaving with others as he would have others behave with him, he is not really wise and educated. Those who come out of the universities should really have not only universal attitude, but cosmic attitude towards life. Only then, they would belong to the real religion and not to the religion which teaches them hatred and narrow mindedness.

Let us strive and work and pray for the broadening of our minds and comprehensiveness of our attitudes towards life and the entire humanity.

Only then,

We would be able to march
from darkness towards light,
from mortality towards immortality and
from Untruth towards Truth.

We Congratulate.....

Prof. Rasheeduzzafar who has been appointed Vice-Chancellor of the Jamia Hamdard University, New Delhi.

Technology Policy Draft Released

The new technology policy proposes to generate resources for research and development and refinement of critical technologies from the industry based on its annual turnover.

Releasing the draft of the new policy the Minister of State for Science and Technology, Mr P.R. Kumaramangalam, said the proposed policy also aimed at enhancing the R&D investment to 2 percent of the gross national product, evolving an effective mechanism for linkage between industry and laboratory, decentralising the implementation process, involving industry in the upgradation of human skills and doubling the number of career R&D personnel in seven years.

Spelling out the basic thrust of the draft policy, the Minister said, "It aimed at giving a renewed sense of purpose to indigenous technology for its accelerated development and use in the context of the new industrial policy."

The draft policy is likely to be finalised within two months after a national consensus is reached through debates at different levels. The Minister invited the views of the Science and Technology Committee of Parliament, scientific bodies, financial institutions, farmers, organisation, members of Parliament and various user organisation on the draft policy.

According to Mr Kumaramangalam, a set of executive as well as legislative measures will be taken to achieve the goals set forth in the draft policy.

Answering queries on the need for a new policy, he pointed out that the last policy statement announced

in 1983 failed to achieve most of its objectives. The new policy has been designed to further strengthen the pace of liberalising economic reforms, already underway, and help the nation fulfil its role in the new global environment with a renewed sense of confidence and urgency.

According to the draft, the government plans to take innovative steps to attract scientific talents of Indians all over the world to double the number of career research and development personnel within seven years. The base of polytechnics, technical and vocational institutes and engineering institutions would be enlarged with the full participation of industries.

Professionals fully conversant with the latest technologies will be inducted into the ministries and departments which heavily depend on crucial technology inputs.

Thrust areas will also include energy-related technologies, technologies for conservation of land and water, technologies to save people from natural calamities, technologies for better agriculture prospects, biotechnology, electronics, communications, ocean development and software promotion.

Stressing that the target for increasing the research and development expenditure be raised from 0.9 percent of the GNP as at present to 2 percent of the GNP by 2000 AD, the policy document said that the government would provide incentives to stimulate contributions from the industry based on the annual turnover.

All government-funded research and development institutions will be actively encouraged to earn

revenues. They will be allowed to retain these earnings from their services as an additionality to government funding.

Research and development collaborations will be actively encouraged through funding of national laboratories.

Andhra University Convocation

The Vice-President of India, Mr. K.R. Narayanan, delivered the Convocation Address at the 63rd convocation of Andhra University recently. Expressing his concern over the growing phenomenon of brain-drain from the developing countries to developed countries, the Vice-President said that about 640 million dollars worth of educated personnel were being received every year by the developed countries from the developing countries. That is the financial evaluation of the cost of the brain-drain, he added.

Mr. Narayanan suggested that this irreparable loss could be averted if the students developed a desire or feeling of oneness and work for the betterment of the country. He pointed out that the education particularly higher education in this country invariably resulted in alienation between the elite and the masses and brain drain towards developed countries. He said that the education had been widening the gap between the rural and urban people, the rich and the poor, the politicians and the vast illiterate electorate.

The Vice-President gave a clarion call to the students to check the increasing alienation in the country and advised them to work towards the economic and social development of the nation and unity of the country.

Mr. Krishna Kant, the Governor and Chancellor of the University presided over the convocation. He gave away the doctorates, medals and prizes to 11 Ph.Ds and 83 prize winners, 34 gold medalists. Prof. Nemani Krishna Murthy, Prof. M. Krishna Kumari and Prof. M.V. Subba Rao received the Best Research Worker awards.

In his Convocation address, the Vice-Chancellor of the Andhra University, Dr. M. Gopalakrishna Reddy, proposed a four-pronged strategy to provide placement to the students by starting job-oriented diploma courses for the postgraduate students, making available in each department information cells on employment opportunities, encouraging student-teacher interaction to facilitate proper placement of students, and making the position and performance of students after the completion of their studies as part of each department's annual report. He said that efforts had been initiated to develop the laboratory and library facilities in the campus and postgraduate centres and disclosed that the Human Resources Development Ministry had sanctioned grants to the tune of Rs. One crore for modernisation of laboratories of the departments of electronics, chemical engineering and mechanical engineering, the University Grants Commission had extended the Special Assistance Programmes in the Departments of Physics and Mechanical Engineering. Similar proposals relating to the School of Economics, and the Department of Geology were under consideration. The Department of Economics had been sanctioned a project by the Asian Development Bank and the National Thermal Power Corporation. The Vice-Chancellor said that research projects and schemes in several disciplines had received considerable boost from a number of funding agencies. The UGC had sanctioned

Rs. 11.19 lakh towards Major Research Projects and the CSIR and other agencies granted Rs. 1.13 crores, he added.

He said that 11 new colleges, of which two were Law Colleges, had been granted affiliation by the University during the year. The review committee constituted by the Board of Management of the University had examined the work done by nine Law Colleges and 10 Education Colleges in the University. While work in seven autonomous colleges affiliated to the University was found satisfactory, a proposal was under consideration to start Master's Course in Computer Applications (MCA) in select colleges.

Dr. Gopalakrishna Reddy announced that the University proposed to award gold medals every year in the names of the founder professors, whose departments have completed 50 years of existence.

Dr. Gopalakrishna Reddy said that the Board of Management, keeping in view the socio-economic needs and developmental goals of the nation, had advised the Boards of Studies to streamline and modernize syllabi.

Magnetic Lab at Pondy Varsity

Prof. S.P. Pandya, Chairman of the Governing Council of the Indian Institute of Geomagnetism, Bombay underscored the need to study science as a holistic discipline.

Declaring open the Rs. 25 lakh magnetic observatory in the Pondicherry Central University at Kalapeth, he said geomagnetism was an ideal subject which had in it the different aspects of science. It began at the core of the earth and pervaded all facets. This enabled full knowledge of the basic sciences.

He stressed the importance of research projects having more than study than just posing over books.

Prof. G. Ram Reddy, Chairman of the University Grants Commission, who witnessed the opening of the Institute's unit in Pondicherry University, said it was a welcome sign that the two institutions had come together in this venture. What had been stressed all along, that there should be collaboration between the institutes and universities, had been achieved in Pondicherry.

Prof. B. P. Singh, Director of the Institute of Geomagnetism, said the UGC should help the institute and give the subject of geomagnetism an important position. Geomagnetism was an intricate science but it had not picked up as a separate discipline. "We need the support of the UGC and it should be perceived as a significant discipline in view of its all embracing nature."

The magnetic observatory is located in an isolated corner of the University campus. About five acres of land had been leased out by the University to the observatory. It houses sophisticated magnetometers which would monitor continuously the magnetic field to an accuracy of one part in fifty thousand or better. There are nine such centres in the country.

With the institute's observatory at Trivandrum, the additional magnetic station at Kodaikanal, the proposed equatorial geophysical lab in Tirunelveli and the Pondicherry station, optimum latitudinal coverage in the northern part of the dip equator is ensured. No such network exists elsewhere. If collaborative efforts with Sri Lanka are fruitful similar spatial coverage south of the dip equator would also come about.

Orientation Programme of Academic Counsellors

The second phase two days Orientation Programme of the The Indira Gandhi National Open University (IGNOU) Academic Counsellors in the subjects of History, Economics and Commerce was recently organised at IGNOU Regional Centre, Patna. Dr. B.P. Sinha, Retired Professor of Ancient Indian History and Culture, University of Patna, who inaugurated the programme, felt that as the number of students as well as number of academic institutions had increased the quality of education had gone down. The examination system had been ruined. Almost all reports on education reforms spoke of the problems of numbers and quality. He hoped with the establishment of IGNOU, the problems of numbers and quality of education would be solved. He desired that IGNOU must look towards rural sectors more than the educated elites.

The first day was devoted to the concept of the Distance Education; aims, structures and functions of IGNOU; role of Regional Centres and Study Centres; use of multimedia in Distance Education and Academic Counselling and assessment and evaluation. Dr. S.K. Sharma, the Regional Director(I/C) dealt extensively the above subjects with the help of transparencies. He said of late there has been an emergence of an autonomous learner who is more important than the teacher (all the teaching aids of educational technologies). The students must be exposed to and the choice of picking the best teaching aid should be left to the learner only. The teachers role should be limited to initiation of discussion and he should act as a catalyst only. Dr. Sharma said that with the introduction of mass communication technology in the distance education, the barrier of time and space has collapsed and it has led to hitherto undiscovered areas of teaching/learning

processes. Consequently, the Distance Education System has emerged as a strong alternative system to provide higher education at the door steps of students.

The concluding day was devoted to course specific group discussions. The participants as well as resource persons discussed in detail the course team approach of IGNOU in developing the course materials in the subjects, of History, Economics and Commerce. Prof. S.P. Sinha, Retired Professor in Economics and Ex-pro-Vice-Chancellor, Bihar University, who presided over valedictory function appreciated the role of IGNOU in launching the innovative courses. He specially referred to the subject of Economics and expressed his concern over the deteriorating standard of teaching in Bihar. Prof. Sinha also distributed the certificates of participation in the Orientation Programme.

Around 25 academic counsellors participated in the Programme.

Popular Science Lecture on Blood

The Warangal Regional Centre of A.P. Akademi of Sciences recently organised a popular science lecture on 'Development and Morphology of Blood' by Prof. T. Vasudev, former Vice-Chancellor of Kakatiya University at the C.K.M. Arts & Science College, Warangal.

Prof Vasudev explained the development of blood in the human system right from the moment of conception. 'The blood test alone gives a complete picture about the health condition of a person and that forms the basis for a medical practitioner to treat the patient,' he said. It was a lecture-cum-slide show.

Presiding over the function, Prof. Dinker Sirdeshmukh, President of the Warangal Regional Centre of AP Akademi of Sciences

and Dean, College Development Council of Kakatiya University said that the Regional Centre was planning to take science to the doorsteps of the common man in the rural areas also by organising popular lecture series

Industry and Technical Education

Mr. Veerappa Moily, Chief Minister of Karnataka, called upon the Indian Society for Technical Education (ISTE) to set up a national committee to hold dialogues with the Confederation of Industries and Chamber of Commerce to promote greater interaction between industries and technical institutions.

Inaugurating a national seminar of the 'Role of Industry in Technical Education' at the Centre for Scientific and Industrial Consultancy in Bangalore Mr Moily said that even though the government had taken many steps to bridge the gap between technical institutions and industries effective linkages were yet to be established.

Similarly there was no much headway in the efforts of such bodies as the confederation of Engineering Industries to establish a close relationship, he added.

Mr Moily said that with a view to bridging this gap lecturers and professors of government engineering and polytechnic colleges would be sent to public undertakings from the next academic year for training.

Mr Moily expressed his deep concern over declining standards in technical education.

He also expressed the view that technical disciplines should be introduced in colleges which offered only BA, B.Com., and B.Sc courses.

"Disciplines like biotechnology need not be confined to engineering colleges which are beyond the reach of majority of students. Hence these disciplines should be introduced in colleges", he added. Mr Moily also

said it was high time that technical education was made cost effective.

The Chief Minister felt that the syllabi of technical courses should be revised every year to keep pace with the changing technology.

Replying to a plea from ISTE Programme Director Dr P.J. George, Mr Moily assured that a piece of land for setting up a promotional service centre would be provided in Bangalore.

B.E. in Geoinformatics

Anna University's Institute of Remote Sensing (IRS) is launching a Rs. 6-crore German-aided project for expanding its activities over the next three years.

A Bachelor of Engineering course in Geoinformatics is one of the components of the project.

The IRS, a leading remote sensing institute in the country, is planning to bring together agencies such as Metrowater, TWAD Board, TNEB and Telephones, to prepare an elaborate Land Information Management System as a pilot study.

A similar effort will be taken up for a Coastal Zone Information and Management System. These will be funded by the Federal Republic of Germany.

Under the coastal zone segment, the stretches between Madras-Mahabalipuram, and Cuddalore-Pichavaram are to be studied.

The course in geoinformatics with a proposed intake of 15 students, was being started after taking into account the critical shortage of experts in remote sensing and mapping techniques, said Dr M. Anandakrishnan, Vice-Chancellor, Anna University.

Remote sensing using sophisticated techniques enabled computerised "push-button" surveying. Aerial photographs and satellite images were translated into maps and

survey data within a short timeframe, providing accurate information to several user agencies.

Prof. Gottfried Konecny, President, International Society for Photogrammetry and Remote Sensing, said Anna University had signed a Memorandum of Understanding with Hannover University, Germany, for exchange of personnel. The IRS was being recommended as a model for many developing countries, on applications of remote sensing.

Mr. Willi Zimmermann, Senior Planning Officer, German Agency for Technical Cooperation, (GTZ) said his agency was involved in planning implementing and monitoring technical cooperation programmes. At Anna University, a workshop was held between February 15 and 19 on objective-oriented project planning.

Dr. T. Natarajan, IRS Director, said facilities for IRS had been provided under Indo-German bilateral agreement, with aid till 1992 totalling Rs. 8 crores. The current phase of activity was from 1993 to 1995.

Emergence of Plant Biotechnology

Professor S.C. Maheshwari, Department of Plant Molecular Biology, University of Delhi, South Campus, recently delivered a talk on 'Emergence of Plant Biotechnology' at the Department of Botany, Kurukshetra University under its Interdisciplinary Seminars Programmes while dwelling on the history and development of Biotechnology. Professor Maheshwari emphasized on the basic research in our universities. Through beautiful transparencies he explained how the techniques of tissue culture and molecular biology form the foundations of any Biotechnological work. Regenerating the plants from calli by Steward, raising haploids from anthers as achieved in his lab., isolation of protoplasts by Cocking at Nottin-

gham and fusion of protoplasts by George in Germany have been successfully used for improvement of crops, he revealed. The recombinant DNA technology and discovery of Ti-Plasmid of *Agrobacterium tumefaciens* and other techniques of DNA transfer and strategies like antisense-FNA, have made possible getting genetically engineered crops (rice, maize, wheat) variously improved characters like herbicide, insect and disease-resistance, improved quality of grain proteins, removal of toxins from food grains, getting better unsaturated fats suited to the healthy human system, controlled ripening and storage of tomatoes and other fruits etc., he added. Though biotechnology offers great promise and we fully depend on it for better future economy and competitive amenities, he cautioned that other basic research should not be ignored and due recognition and emphasis should be laid on it also.

International Education Commission

Dr. Karan Singh has been named member of the International Commission on Education for the 21st Century. The Commission set up at request of UNESCO, will reflect on the aptitudes, know-how, competence and knowledge that individuals need to carry out their duties and realize their rights.

A mix of historians, ministers, writers, educators, and sociologists among others from fourteen countries round the world constitute the fourteen members of the Commission. It will be chaired by Jacques Delors, President of the Commission of European Communities. Other members include Mr Carlos Fuentes, Mexican writer and University Professor and the Rt Hon Michael Manley, university lecturer, author and former Prime Minister of Jamaica.

In view of the importance and range of its mandate, the Commission will be aided in specific aspects of its work by an international group

of distinguished advisors known for their successful work in the area of educational policy, Ms Gro Harlem Brundtland, Prime Minister of Norway, Sir Yehudi Menuhin, British violinist, David Suzuki, Canadian scientist and science populariser and winner of the 1986 Kalinga Prize and Sheikh Saki Yamni, former Saudi Arabian minister of Petroleum and Natural Resources are among those who will constitute this group. The Commission will present its report at the beginning of 1995.

Science City in Calcutta

A science city, educating people to live scientifically and in harmony with the nature, will be established in the city during the current plan period, according to Prof Sankar Sen West Bengal Science and Technology Minister.

Inaugurating a seminar on "Calcutta today and tomorrow," organised by the Bharat Chamber of Commerce, Prof Sen, who is also the Power Minister, said the proposed city would be set up in collaboration with the Calcutta Municipal Corporation.

The Centre, he said had sanctioned Rs 60 crore for the purpose while the Municipal Corporation had given 50 acres for the proposed city which would have museums and models showing avenues of a care-free living, besides checking the growing degradation of the metropolis' environment.

He also stressed the need for initiating an action plan to provide succour to city dwellers from environmental degradation and said the chambers and business community had a bigger role to make the city habitable.

IGNOU ties up with NIRD

Prof. V.C. Kulandaiswamy, Vice-Chancellor, Indira Gandhi National Open University signed a memorandum of understanding with the National Institute of Rural

Development in Hyderabad recently. The memorandum provides for collaborative and complementary efforts between NIRD and IGNOU. It covers the use of study material and involvement of faculty members in updating course material. The Director General of NIRD, Mr. T.C.A. Srinivasaramanujan was also present on the occasion.

Journalism School Opened

The School of Journalism and Communication sponsored by the National Union of Journalists (India), was inaugurated recently in New Delhi by Mr. H.K. Dua, Editor of Hindustan Times.

Speaking on the occasion, Mr. Dua said that while the press in India had taken care of its freedom, efforts were needed to take care of professional standards. Unless the press maintained professional standards, the society might not help in protecting the freedom of press. He hoped that the School of Journalism would go a long way in enhancing professional standards of journalists.

Mr. Prithvis Chakravarti, Chairman of the School, said the institution was started to provide training facilities for the entrants and the upgradation of those already in the field.

UNIVERSITY NEWS

Form IV (See Rule 8)

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| 6 | Names and addresses of individuals who own the newspaper and partners or shareholders holding more than one percent of the total capital | Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-110002 |

I, Sutinder Singh, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Publisher

Agricultural Human Resource Development

To develop effective training and extension system in Haryana and also to strengthen the teaching and research facilities in the emerging areas, the World Bank will finance the state suitably under its ambitious project entitled "Agricultural Human Resource Development". This consensus emerged out of the two days Workshop held at Chandigarh on Feb. 20 and 21 under the Chairmanship of the Vice-Chancellor, Dr. A.L. Chaudhry. During this workshop, the World Bank consultants : Drs R. Hunink, Van Reenen, Darvesh Kishore and Jagdish Kalla held detailed discussions with the Vice-Chancellor, Dr. A.L. Chaudhry and senior officers of the university, state Departments of Agriculture, Horticulture, Animal Husbandry and Fishery. On this occasion, the details of the project were finalised in consultation with officials of the government and non-governmental organisations.

The workshop also recommended strengthening of inter-institutional linkages. In his remarks, Dr. Chaudhry pointed out that agricultural development in Haryana had reached a plateau and to achieve further progress the area of human resources and institutional management had to be taken care of. Dr. Chaudhry hoped that under this project the state will be able to further achieve a breakthrough in its agricultural production.

Shri M.K. Miglani, IAS, Commissioner and Secretary, Department of Agriculture, Haryana inaugurated the workshop.

Sanchar Bhavan at Raipur

Kunwar Mehmood Ali Khan, the Governor of Madhya Pradesh and the Chancellor of the Indira Gandhi Krishi

Vishwavidyalaya, Raipur, inaugurated the Sanchar Bhavan (Communication Centre) of Indira Gandhi Krishi Vishwavidyalaya Raipur (M.P) recently. Speaking on the occasion the Governor called upon the scientists, teachers and students of the university to work on the fields along with the farmers and convince them about the usefulness of the latest technology. The university must extend needed information at the opportune time to the farmers. He said that the need of the hour was to bring the farmers into the mainstream of the country by solving their problems with available resources and supplying them latest information. He hoped that the Sanchar Bhavan will do this job and the farmers of the region will be benefitted.

Earlier Dr. Kirti Singh, Vice-Chancellor of Indira Gandhi Krishi

Vishwavidyalaya welcomed Kunwar Mehmood Ali Khan and his wife, Mrs. Bilal Begum. Dr. Singh said that within a small duration of 5 years Indira Gandhi Krishi Vishwavidyalaya had achieved many goals such as establishing Dairy Technology College, Veterinary & Animal Husbandry College etc.

Lessons from Thailand

Dr. C. Ramasamy, Professor of Agricultural Economics delivered the Campus seminar on "Thailand Revisited - Lessons from one of the Asian Tigers" recently at the Centre for Agriculture and Rural Development Studies, Tamil Nadu Agricultural University (TNAU), Coimbatore.

Presenting the research results of the International Project on Rice Research by Rockefeller Foundation, Dr. Ramasamy outlined the priority areas of rice research based on project findings. "The bio-safety aspect of biotechnological researches should be given due attention", he underlined.

VIDYA VIKAS MANDAL'S GOVIND RAMNATH KARE COLLEGE OF LAW P.B. No. 777, Margao-Goa - 403 601 (Affiliated to Goa University)

Applications are invited for the post of

PART TIME SPORTS DIRECTOR

QUALIFICATIONS	:	As laid down by UGC & Goa University
SCALE OF PAY	:	As prescribed by Goa University & Director of Education, Goa State.

Applications with full bio-data accompanied by copies of certificates and statement of marks from S.S.C. onwards must reach the Principal within 15 days from the date of publication of this advertisement.

Candidates who are already employed shall send their applications through proper channel. Break in service if any should be accounted for.

PRINCIPAL

Detailing the socio-cultural aspects of Thailand Dr. Ramasamy compared the similarities on "cultural Dimension" between our country and Thailand. The phenomenal average growth of non-agricultural sectors in Thailand was explained by him with the help of time-line data-base and analysis.

On the agricultural export front, he emphasised the scope for fruits and vegetables.

Dr. R. Vijayaraghavan, Deputy Director of Planning and Monitoring, TNAU presided over the Seminar and stressed the need for understanding the economic profiles of countries at global level and international marketing. Presenting the basic data on land, people and natural resources of Thailand, Dr. Vijayaraghavan wanted the young scientists to study closely on these resources base at the international level.

Future Trends and Challenges in Engineering Education

The Association of Engineering Education in South East Asia and the Pacific (AEESEAP) has convened an International Conference on Engineering Education on 10-12 November 1993 at Singapore. This conference is co-sponsored by the Federation of Engineering Institutions in SEA and the Pacific (FEISEAP), and the International Association for Continuing Engineering Education (IACEE). The conference will be organised by the Faculty of Engineering, National University of Singapore.

The conference theme, "Future Trends and Challenges in Engineering Education", reflects on the effect of the rapidly changing nature of technological development on engineering education. It provides a forum for discussion and sharing of experience on various facets of curriculum development, and on teaching-learning and training strategies to meet the challenges of rapidly advancing technology.

Topics suggested for discussion include Curriculum development *Teaching and assessment strategies *Computer aided teaching/education *Quality assurance in education *Creativity in education *Continuing education for engineers *University- Industry partnership *Training of engineers for industry *Challenges of new technologies *Management of technology *Educational psychology *Role of women in engineering *Project based learning.

Further details can be had from :

Intl Conference on Engineering Education '93
c/o Applied Research Corporation
Engineering E4-04-11
National University of Singapore
Kent Ridge Crescent
Singapore 0511

Philippe Laudat Conferences 1993

Organised with the support services provided by National Institute for Health and Medical Research (INSERM), the Philippe Laudat Conferences are intended to promote high level medical scientific exchanges throughout Europe and the world in basic and specialized clinical fields such as biomedical and health research. Original programmes and new approaches are encouraged.

The conferences programmed for 1993 are as follows :

Hemopoiesis and early T cell Differentiation -September 5-9, 1993. Themes proposed for discussion are *Hemopoiesis in the bone marrow : role of environmental factors (adhesion molecules, growth factors, stromal cells)

*Purification and characterization of human and mouse stem cells *Early T cell differentiation : in vitro/in vivo differentiation of early T cell precursors. Role of the different stromal elements within the thymus

*Gene regulation during early lymphopoiesis : the question of commitment *Embryonic stem cells : differentiation towards T cells.

Molecular Aspects of Neuronal Transporters - September 26-30,

1993. Topics proposed to be discussed are *The plasma membrane transporter families *Molecular characterization of the plasma membrane transporters *From transporters to higher brain functions *Function, regulation and localization of transporters *Biochemistry and molecular biology of the vesicular transporters.

Glutamate Receptors : From Genes to Pathology - October 3-7, 1993. Themes proposed to be taken up for discussion include *Diversity of glutamate receptors and their structure *Allosteric regulatory sites on glutamate receptors; targets for new therapeutical agents *Nitric oxide (NO), cyclic AMP and Ca^{++} as intra -and intercellular messengers for glutamate receptor actions *Molecular mechanisms of neuronal cell death induced by glutamate.

Scientists wishing to attend to the conferences can obtain informations and application forms at the following address : Conferences Philippe Laudat Bureau des Colloques et des Conferences Department de l'information et de la communication 101, rue de Tolbiac - 75654 Paris cedex 13 - France.

Last date for registrations is May 1st, 1993.

Flawed but Useful

Surinder Chawla*

A R Kohli. Government of India: Nehru to Narsimha Rao.
New Delhi, Reliance Publishing House, 1993. Pp. ix, 219. Rs. 250/-

Government of India - Nehru to Narsimha Rao has been divided into two parts. The first part of the book lists the members of the Union Cabinet since the time of first government at the centre in 1947 to the Narsimha Rao Government in 1991-1992. The second part of the book deals with the biographical sketches of Prime Ministers of India.

There is very little one can comment on the factual data provided in the first part of the book but for a random check of the names given in the lists of Council of Ministers of the Union Cabinet. Such a check indicates that the compilation of yearwise account of members of the Council of Ministers in the present book has a fair degree of accuracy. However, there is lack of consistency in the style of presentation. One is intrigued by the suffixes 'FN' and 'AN' after certain names and dates (p. 48, 49) while these abbreviations are missing in other entries. Infact, FN and AN meaning forenoon and afternoon have hardly any significance in a compilation of this kind. Again subheadings are sometimes given in bold letters (p 8), sometimes in italics (p57) while at the other places they are in bold italics (p37). The dates are sometimes mentioned in brackets and sometimes without brackets. This not only irritates the reader but also obstructs the search.

The book also does not follow any pattern of listing of various ministries, or ministers and lists of Council of Ministers of the government have been given randomly. Perhaps it would have been better, if the author had taken little more pains to serialize the listing in an alphabetical or some such order as would have helped the reader to easily locate what he desires to search. It would have been very useful if the author had given in part I the important ministries and the ministers with dates that they held office under that particular ministry as he has done in the annexures for Presidents, Vice Presidents etc. Part I of the book also contains short chapters on the transfer of power on August 15, 1947 and position of different political parties at that time in Parliament and gives information on the powers of the Governor General. The constitution of Union Government between 15th Aug, 1947 to the declaration of Republic of India has been provided with a historical touch in another short chapter while a brief account of the first general election has been provided in part I of the book. The discussions presented in these chapters of part I are useful. These supposedly give an account of actual happenings and have been given with a flavour of a novelist rather than that of a historian or a biographer. It would have been better if the author had given the factual data about election officers, election procedures, the number of votes polled etc. or the political party positions at the time of each election or the num-

ber of members of parliament etc. which would have increased the utility of the book. At places the author has also discussed the Constitutional Amendments (p11) but such discussions offer only a surface level treatment of the subject. The mention of only 42nd Amendment of the Constitution is welcome as this particular amendment sought to tinker with the basic fabric of the Constitution. However, it leaves one guessing whether the other amendments were or are unimportant.

In the second part of the book, the author presents biographical sketches of the present and past Prime Ministers and it is this part which leaves much to be desired of the author. One is irked by the fact that many trivial things have been discussed at length while important biographic details have been left out. A rapid reading of these chapters in this section gives one the feeling that the author is an ardent admirer of all the Prime Ministers and this section appears more as a eulogy than presentation of biographies. The sketches shower praise on personalities being discussed to such a level that raises the officials discussed to the level of demigods. Comments like 'he is an honest, clean and above all is not a manipulator'. 'He is not only scholarly and studious but also has a keen sense to distinguish between right and wrong'.... (p. 201) speaks enough about the fact that his comments are subjective and are only buttering the people who matter. Even the friends of the person under discussion may not be overjoyed to see such eulogies and objective analysis of the personalities concerned is missing. All the biographic sketches given in the book have a lop-sided presentation. For example 'he held the office of Prime Ministership for 11 months, lost the motion of confidence after heated debate that lasted 11 hours

*Asst Librarian, Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi - 110 002

in the 11th month of the year. This happened second time in the Parliamentary history of India after an interval of 11 years..... and incidentally 1100 gallery passes were issued to visitors to witness this briefest and historic session of the Lok Sabha....' Passages such as these refer to the author's belief in numerology and maybe superstitions also.

The author seems to enjoy dramatization of events which should be restrained in a compilation of the type author is trying to project for his work. This section lacks coherence, objectivity and historian's touch in giving facts and figures. What a particular leader said on the death of a Prime Minister does not form a portion of a biographical sketch unless it has some rationale and in this context, the overall presentation of this section in the book should be con-

sidered a failure. Again some of the life sketches include the number and titles of the books authored or edited by Prime Ministers while for others, this list is missing. While discussing a particular Prime Minister's life, the author sometimes talks of names, professions, qualifications of parents and off springs, topics or subject taken during his educational career whereas in other cases such details are missing and other factors have been discussed at length. There is no uniformity in the presentation of the subject matter throughout the book and no coherence has been maintained in the text. The jacket describes of the book with the words 'All the directories published over the years put together will not answer the queries, which this reference tool will do singly' is simply an over statement which is not jus-

tified, particularly when the book and the author leaves much to be desired.

The book contains a very useful and exhaustive name index and annexures which help to know about a particular minister at a glance. The cost of Rs. 250/- for a 219 page book of this type seems to be on the higher side particularly when these books serve a limited purpose these days as the Union Ministries are changing so fast. In fact by the time this book came in the reviewers' hands, the Union Cabinet had already been reshuffled. Despite these shortcomings the author must be given the credit for making available a reference source of value to those who are looking for 'Who was who and when' if not for those looking for 'who is who and where'. The book will prove to be a welcome addition to the reference works of any library.

CALENDAR OF EVENTS

Proposed Date of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/ Officer to be contacted
May 25-27, 1993	Sixth Annual Conference of the All India Association for Educational Research	Theme: Research in Educational Management	All India Association for Educational Research in collaboration with St Ann's College of Edu- cation, Mangalore	Dr (Sister) Lydia Fernandes A.C., Principal, St Ann's College of Education, Mangalore
1st Week of June, 1993	Annual Conference of Indian Academy for Instructional Planning	Theme : Instructional Planning - an educational rethinking	Pravara Rural College of Education, Pravaranagar, Dist Ahmednagar	Dr. P.L. Kirkire Secretary, IAIP, BEd. College Lonl (Pravaranagar) Dist Ahmednagar-413712
December 14-16, 1993	1993 Annual Conference of the Society for Research into Higher Education	Theme: Governments and the Higher Education Curriculum: Evolving Partnerships	Society for Research into Higher Education, London	Prof. Tony Becher, EDR, University of Sussex, Falmer, Brighton BN 1 9RG

A list of research scholars registered for doctoral degrees in Indian Universities

SOCIAL SCIENCES

Psychology

1. Flint, George J. Psychological adjustment of military personnel. Kerala. Dr S Jayakumari, Reader, Department of Psychology, University of Kerala, Kariavattom.

Political Science

1. Kashyap, Sach. The role of military in politics: A case study of Burma, Myanmar. HP. Dr Rajinder Singh Chauhan, Department of Political Science, Himachal Pradesh University, Shimla.
2. Mehta, Ritu. State, Constitutions and political power in the Erestwille Soviet Union: A conceptual study on the collapse of the USSR. HP. Dr Javed Alam, Department of Political Science, Himachal Pradesh University, Shimla.
3. Pavagi, Vansha. Bharat Sri Lanka sambandh, 1967 ke samajhate ke vibesh sandarbh mein. H S Gour. Dr S S Sodhi.
4. Sharma, Sushma. Ethnicity and nation building: A case study of Sindh in Pakistan. HP. Dr Rajinder Singh Chauhan, Department of Political Science, Himachal Pradesh University, Shimla.
5. Upadhyay, Pradip Kumar. Bhartiya rajniti tatha rajniti dal, 1969 se 1990 tak. Vikram. Dr (Smt) Sandhya Billore, Prof, Department of Political Science, Govt Girls College, Ujain.

Economics

1. Janardanan Pillai, B. Economics of milk production. Kerala. Dr G Karunakaran Pillai, Reader, Department of Economics, University of Kerala, Kariavattom.
2. Narayanan, K. Economics of alternative technologies in house construction. Kerala. Dr C Radhakrishnan Nair, Reader, Department of Economics, University of Kerala, Kariavattom.
3. Thakur, Vandana. 'Sagar Sambhag ke pramukh kriahi samasyayen: Ek mulyankan. H S Gour. Dr K C Jain

Public Administration

1. Bhupinder Kumar. Accountability of higher civil servants in Himachal Pradesh: A study in relationship between bureaucrats and ministers at state level. HP. Dr Padam Nabh Gautam, Department of Public Administration, Himachal Pradesh University, Shimla.
2. Goel, Simmi. Administration of job satisfaction mechanism among employees in selected public sector undertakings of Himachal Pradesh. HP. Dr Shiv Raj Singh, Department of Public Administration, Himachal Pradesh University, Shimla.
3. Naninder Kumar. Bureaucracy and development: A comparative study of three districts in States of Punjab, Ropar, Haryana, Ambala and Himachal Pradesh, Solan. HP. Dr R D Sharma, Department of Public Administration, Himachal Pradesh University, Shimla.
4. Sen, Kalpna. Relationship between politicians and administrators at district level in Himachal Pradesh with special reference to Shimla and Mandi Districts. HP. Dr Shiv Raj Singh, Department of Public Administration, Himachal Pradesh University, Shimla.

Education

1. Sobha, V K. Educational needs of intellectually superior students at plus two stage and the strategies adopted by teachers in meeting the needs. Kerala. Dr Mercy Abraham, Prof, Department of Education, University of Kerala, Thycad, Thiruvananthapuram.

Commerce

1. Balachandran Nair, K K. A study of the impact of trade union movement in Kerala. Kerala. Dr K P Maraleedharan, Lecturer, Department of Commerce, University of Kerala, Thiruvananthapuram.
2. Gupta, Arvind Kumar. Trends and prospects of agricultural and processed food export from India. Panjab. Dr Satish Kumar Kapoor, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh.
3. Karcom, A A. House hold savings and investments in Kerala: An empirical study. Kerala. Dr M Sarangadhasan, Reader, Department of Commerce, University of Kerala, Thiruvananthapuram.
4. Mehta, Lalit Kumar. Software exports from India. Panjab. Dr Satish Kumar Kapoor, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh.
5. Nayyar, Sushil. Human resource development in State Bank of India. HP. Dr Rajinder Sharma, Department of Commerce, Himachal Pradesh University, Shimla.
6. Sopan, Nikam Ramhari. A study of managing cost and productivity of co-operative sugar industry in Solapur District. Shivaji. Dr B B Ekshunge, Onkar Prasad, Gandhinagar, Naikwadi Plot, Baramhi.

Home Science

1. Girija Devi, P K. A study of familial problems of elderly women. Kerala. Dr S Kamini, Prof, Department of Home Science, College for Women, Thiruvananthapuram.
2. Mathew, Susan J. Attitude of adolescents towards the academic expectations of parents. Kerala. Dr S Kamini, Prof, Department of Home Science, College for Women, Thiruvananthapuram.
3. Radhika, R. Anganwadi as a focal point in integrated child development service: An evaluation. Kerala. Dr S Kamini, Prof, Department of Home Science, College for Women, Thiruvananthapuram.
4. Rishi, Priti. Mapping RDA for energy for Indian sportswomen. Delhi. Dr Anupa Siddhu, Lecturer, Department of Food and Nutrition, Lady Irwin College, New Delhi.
5. Thampi, P Resmi. Mahila samajans - their role in empowerment of women. Kerala. Dr S Kamini, Prof, Department of Home Science, College for Women, Thiruvananthapuram.
6. Varghese, Elizabeth. Women employment: Impact on the family. Kerala. Dr S Kamini, Prof, Department of Home Science, College for Women, Thiruvananthapuram.

Management

1. **Dasgupta, Suresh.** Formulation of a strategy applying quantitative financial techniques for long term stock market portfolio investment. Panjab. Dr S C Vaidya, Reader, Department of Commerce and Business Management, Panjab University Chandigarh.

2. **Bhatia, Harcharan Singh.** Management of telecommunications projects in changing environment. Panjab. Prof S P Singh, Department of Commerce and Business Management, Panjab University, Chandigarh.

3. **Dixen, Parag.** Analysis and design of computer integrated manufacturing system for semiconductor industry. Panjab. Prof Bidhi Chand, Department of Commerce and Business Management, Panjab University, Chandigarh and R P Gupta, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh.

4. **Dube, Upma.** Management of drinking water distribution in Sagar Division: A comparative study of Sagar and Damoh District. H S Gour. Dr Y S Thakur

5. **Gupta, Manju.** Personal management of women employees in selected industries of M P. H S Gour. Dr Y S Thakur.

6. **John, Johnson.** Financial management of tyre industry in Kerala. Kerala. Dr R Gangadharan Nair, Reader, Institute of Correspondence Courses, University of Kerala, Kariavattom.

7. **Kashmiri Lal.** Physical distribution system of vanaspathi: A study of selected companies. Panjab. Prof Bidhi Chand, Department of Commerce and Business Management, Panjab University, Chandigarh and Dr Satish Kapoor, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh

8. **Khushdip Kaur.** Performance appraisal of employees in selected banking organizations and insurance companies of Chandigarh. Panjab. Dr P P Arya, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh

9. **Mahan, Shashi Bhushan.** Indian sugar industry in global context: A strategic analysis for project planning. Panjab. Prof S P Singh, Department of Commerce and Business Management, Panjab University, Chandigarh

10. **Mukesh Kumar.** Performance evaluation of Indian mutual funds. Panjab. Prof B B Tandon, Department of Commerce and Business Management, Panjab University, Chandigarh and Dr Yash Pal, Lecturer, Department of Commerce and Business Management, Panjab University, Chandigarh

11. **Paramjit Kaur.** Cost of capital: An empirical study of selected companies. Panjab. Dr C Prabhakara Babu, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh

12. **Sharma, Anil Kumar.** Study of financial management of State Housing Board in Northern Region of India. Panjab. Dr S C Vaidya, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh

13. **Sharma, Aradhana.** Capital budgeting procedures and application of models in Indian industry: An empirical study of selected companies. Panjab. Dr C Prabhakara Babu, Reader, Department of Commerce and Business Management, Panjab University, Chandigarh

14. **Shiva.** Comparative performance of public sector Tourism Corporations of Panjab, Haryana, Himachal Pradesh and U T of Chandigarh. Panjab. Prof Bidhi Chand, Department of Commerce and Business Management, Panjab University, Chandigarh.

Fine Arts

Music

1. **Ritu Kumari.** Sitar, iske anubhuti tatha anubhuti svaroop: Vibhinn gharanon ke vadan vidhi ke pariprekshya mein. HP. Dr I Chakravarti, Department of Performing Arts, Himachal Pradesh University, Shimla.

Dance

1. **Kashyap, Vidya.** Natl, Himachal Pradesh tatha Baster, Madhya Pradesh ke lok nrityon ka tainatmak vishleshan. HP. Dr I Chakravarti, Department of Performing Arts, Himachal Pradesh University, Shimla

Language & Literature

English

1. **Chouhan, Rashmi.** Humour in the poetry of Elliot, Auden and Pound. H S Gour. Dr (Mrs) S Sengupta.

2. **Parook, C.T.** The sociolinguistic factors relevant to the teaching of English to the students of vocational higher secondary courses in Kerala. Kerala. Dr Maya Dutt, Lecturer, Institute of English, University of Kerala, Thiruvananthapuram.

3. **Gour, Udai Bhan Singh.** Existentialism in the novels of Shashi Deshpande. H S Gour. Dr A K Awasthi

4. **Joseph, Abraham.** Cross cultural conflicts in the plays of George Ryga. Kerala. Dr A Jameela Beegum, Reader, Institute of English, University of Kerala, Thiruvananthapuram

5. **Kamala, R.** The novels of John Wain as comedies of discontent. Kerala. Shri S V Iyer, Reader, Institute of English, University of Kerala, Thiruvananthapuram

6. **Sammuel, V T.** Theological gestalt in the novels of Graham Greene and Brian Moore. Kerala. Dr Maya Dutt, Lecturer, Institute of English, University of Kerala, Thiruvananthapuram.

7. **Sharma, Vinita.** Ivory in Jane Austen and Ruth Prawer Jhabvala: A cross culture study. H S Gour. Mrs Sengupta

8. **Shereef Rehman, A.** Self reflexivity in the works of Nissim Ezekiel and Michael Ondaatje. Kerala. Dr A Jameela Beegum, Reader, Institute of English, University of Kerala, Thiruvananthapuram

9. **Sreelatha, S.** Madness in the novels of Doris Lessing: A dark descent into the interior, a threshold to new consciousness. Kerala. Dr V Rajakrishnan, Reader, Institute of English, University of Kerala, Thiruvananthapuram

10. **Valsa, Koshy Elizabeth.** Feminist perspectives and existential peril in Ellen Glasgow's Virginia Barren Ground and the romantic comedians and Toni Morrison's The Bluest Eye, Sula and Song of Solomon. Kerala. Dr K Radha, Prof, Institute of English, University of Kerala, Thiruvananthapuram

11. **Verma, Madhu.** An examination of non-fiction writings in America. H S Gour. Dr (Smt) S Sivaraman

12. **Vijayamohanam, J.** Lyrical voices and social vision in the poetry of Dorothy Livesay and Judith Wright. Kerala. Dr Maya Dutt, Lecturer, Institute of English, University of Kerala, Thiruvananthapuram

Malayalam

1. **Sunilkumar, R.** Rashtriyavabedham sadhunika Malayala kavithayil. Kerala. Dr N Mukundan, Lecturer, Department of Malayalam, University of Kerala, Kariavattom

A list of doctoral degrees accepted by Indian Universities.

SOCIAL SCIENCES

Library & Information Science

1. Dixit, R P. Information management in health science libraries in India with special reference to Delhi. Rajasthan. Dr (Mrs) P Dhyani, Assoc Prof, 4-Ja-3, Jawahar Nagar, Jaipur.
2. Shrivastava, Rochana. Reading habits and literature use by botanists. Jiwaji. Prof B Guha.
3. Singh, Sonal. The development of university libraries in Uttar Pradesh after independence. Vikram. Prof S S Aggarwal, Head, Department of Library Science, Vikram University, Ujjain.

Psychology

1. Das, Indira. A study of the nature of drug, cognizance, personality profile and value modes of higher secondary school students of Calcutta. Calcutta
2. Konar, Ajay Kumar. A study of the effect of demographic factors on the performance of the candidates on different ability and aptitude tests in the clerical selection examination for recruitment of banks. Calcutta
3. Madhavan, Manju. Factors affecting human resources development in Government organisations. Bangalore. Dr (Mrs) Vinoda N Murthy, Prof, Department of Psychology, Bangalore University, Bangalore
4. Raghuram, Abhya. Attitudes towards mental illness: A comparative study. Bangalore. Dr G G Prabhu, Prof and Head, Department of Clinical Psychology, National Institute of Mental Health and Neuro-Sciences, Bangalore
5. Thakur, Alpna. Teknikal evam gair teknikal salnik adhikariyon mein jolkhimpurnavyavahar ka mansik sajgata evam vyaktitva sheel gunon per prabhav ka adhyayan. Durgawati.
6. Venkatesh Reddy, A N. The impact of deprivation awareness on some dimensions of self. Gulbarga. Dr B Krishna Murthy, Department of Psychology, Gulbarga University, Gulbarga

Sociology

1. Agiawe, Pradeep Nagorao. Dr B R Ambedkar as a social thinker. Nagpur. Dr M R Deshmukh
2. Chauhan, Sadhana. Bal sudhar sansthayon ke antah vasi bal apradhiyon ke samajik arthik prishthabhumti: Chambal Sambhag ke sandarbh mein ek samajshastriya adhyayan. Jiwaji. Dr Laxmi Tomar, Department of Sociology, Maharaja Mansingh College, Gwalior.
3. Jain, Nisha. Mahila mukhya parivar ka samajshastriya adhyayan: Indore Nagar ke sandarbh mein. Devi Ahilya. Dr T R Seth, 61, Pagnis Paga, Mein Road, Indore.
4. Kothia, Namrta. Brihitar Gwalior ke nivasiyon ke samajik jeevan per doordarshan ka parbhav. Jiwaji. Dr (Smt) Usha Govila, Principal, Govt Naveen Girls College, Gwalior.
5. Mchar, Kiran. Kosa udyog ke bunkaron per samajik, sanskritik parbhav: Raigarh Jile ka ek samajshastriya adhyayan. Ghasidas. Miss Shuchi Jha, Govt Kanya Postgraduate College, Bilaspur.
6. Naji, Yahya Baqer. Academic performance of foreign students in relation to their social adjustment in India. AMU. Prof Noor Mohd Sulaiman.
7. Nataraj, H M. Socio-economic problems of Lambani Tribe of Karnataka. Jiwaji. Dr P V G Tomar, Prof and Head, Department of Sociology, MLB Arts and Commerce College, Gwalior
8. Nayaft, Saraswati. Pall aharmitkon ka parivartik samanjan: Bhilal Ispat Sanyantra ke sandarbh mein karyakari anusandhan abhikalpa. Ghasidas. Dr D S Bachela, Prof, Department of Sociology, Govt T R S College, Rewa
9. Pauranik, Sanjay. Brihitar Gwalior mein Karamchari Rajya Bima Yojna ke antragat labharthiyon dwara parivar kalyan

sevayon ke upayog ka ek samajshastriya adhyayan. Jiwaji. Dr (Smt) Usha Govila, Principal, Govt Naveen Girls College, Gwalior.

10. Prateep Singh. Rising tendencies of drug addiction among Chamoli District: A sociological study. Garhwal. Dr Jai Singh.
11. Panalekar, Devyani Sitaram. Urbanization and social change: A case study of a fringe village. Patel. Prof A S Patel.
12. Rai, Brijbala. Brihitar Gwalior ke vidhyayon ke samajik abhiti evam bhannika: Ek samajshastriya adhyayan. Jiwaji. Dr M P Shrivastava, Prof and Head, Department of Sociology, Jiwaji University, Gwalior.
13. Sarma, Ramesh Chander. Drug abuse among students in Jaipur City with particular area of Rajasthan University and Constituent Colleges students. Bundelkhand. Dr (Smt) Gargi, Principal, Arya Kanya Degree College, Jhansi.
14. Sengar, Sunita. Mahabharatkalasa samaj mein parivar vyavastha: Ek samajshastriya adhyayan. Jiwaji. Dr R M Senena, Department of Sociology, Govt Degree College, Balaji Mihona.
15. Sharma, Subhash Kumar. A socio-economic study of Saharia Tribe in Morena District, Madhya Pradesh. Jiwaji. Dr S S Bhaduria, Department of Sociology, Govt B S College, Gwalior.
16. Shrivastava, Ramkrishna. Parivar niyojan ke kriyanvayan mein grameen jonati ke sambhagita: Shivpuri Jile ke sandarbh mein ek samajshastriya adhyayan. Jiwaji. Dr R S Bhaduria, Department of Sociology, Govt P G College, Shivpuri.
17. Vyas, Shradha. Kalidas ke mahakavya mein chitrit nari ka samajshastriya adhyayan. Vikram. Dr P N Khare, 7 Bakshi Colony, Indore.

Social Anthropology

1. Medhi, Bandita. The potters and pottery of Nalbari District, Assam: A study in ethno-history and ethno-archaeology. Gauhati. Dr H C Sharma, Reader, Department of Anthropology, Gauhati University, Guwahati.

Social Work

1. Kavitha, M A. Psycho-social correlates of SC students: A study of mental health and adjustment problems. Bangalore. Dr U A Shrivastava, Department of Psychiatric Social Work, National Institute of Mental Health and Neuro Sciences, Bangalore.
2. Mathew, Minnie. Nutrition and health education among tribal adolescent girls with special reference to the role of the ICDS. Jamia. Prof M Z Khan, Department of Social Work, Jamia Millia Islamia, New Delhi
3. Sankar Rao, Allu Gouri. Mental morbidity among university students: A study. Andhra

Political Science

1. Afzal, Nuzhat. Pandit Jawaharlal Nehru ke rajnitik chintan ka vilas. Barkatullah.
2. Awasthi, Pramod. Panjab samasya: Ek vishleshnatmak adhyayan. Vikram. Dr H S Sabharwal, Prof, Department of Political Science, Vikram University, Ujjain.
3. Baliram Singh. Impact of democratic decentralisation and rural development. Magadh
4. Chaudhuri, Alok Narayan. Evolution of the political thought of Jayaprakash Narayan. Calcutta.
5. Ellaba Kar, Ashok Kumar. Madhya Pradesh Vidhan Sabha mein virodhi dal ke bhumi ka vishleshnatmak adhyayan. Barkatullah.
6. Gajbhiya, Digambar Dudharam. Samtecha hakkanche sarankshnam va vilasabhat bhumi. Nagpur. Dr Vasant R Rayapurkar, Prof, Bishano Nagar College, Nagpur.
7. Jafri, Syed Wali Husain. A comparative study of political ideas of Nizamul-Mulk Tusi and Abdul Hasan-al-Mawardi. AMU. Prof S A H Haqqi

8. Jaisankar, Rajendra. Bharat mein sampadadyakta ke rajniti vishleshanarthik samasyaon ki bhumi. Vikram. Dr M K Jaisankar, Asst Prof, Department of Political Science, Vikram University, Ujjain.

9. Jaisankar, G. District politics in AP: A case study of Medak. Osmania.

10. Kishoripachay, Samir Kumar. Operation Barga: A study in changing rural power structure in West Bengal. Calcutta.

11. Kishoripachay, Khaja. Educational rights of minorities under the Indian Constitution: A case study of Andhra Pradesh. Osmania.

12. Sahu, Kama. Nyayopoliti prachin ke jee manavalyanik samasyaon ki bhumi, nirvadi samasyaon ke sandarbh mein: Bhopal Jile ke jee Nyayopoliti ke vishleshan ke vishleshan ke adhar par. Barkatullah.

13. Sharma, Sochita. Navin Lok Sabha mein madad, vyavhar: Rajgarh Jile ke sarvlokhan per adharit. Vikram. Dr Nisha Vashishtha, Department of Political Science, Vikram University, Ujjain.

14. Singh, Sudhir Kumar. The national front for the liberation of South Vietnam: A study of its origin and growth, 1960-75. JNU. Dr Ganganath Jha, Asst Prof, Centre for South, Central, Southeast Asian and South West Pacific Studies, Jawaharlal Nehru University, New Delhi.

15. Sudhakar, E. SAARC: A study of issues, problems and prospects. Kakatiya. Prof B Venkateshwarulu, Department of Political Science, Kakatiya University, Warangal.

16. Tiwari, Abha. Bharat mein Sikh alavvad evam videshi shaktiyon ke bhumi. Vikram. Dr C S Panwar, Asst Prof, Department of Political Science, Vikram University, Ujjain.

17. Tiwari, Surendra Kumar. Bhartiya rajniti mein kshetriya pravritiyan: Ek vishleshanatmak adhyayan. H S Gour. Dr R C Dubey, Department of Political Science, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

18. Veena Kumari. Jammu and Kashmir State and Central Asia political relations, 1857-1947. Jammu. Dr Vidya Bhushan, Reader, Department of Political Science, University of Jammu, Jammu.

Economics

1. Arora, Yogesh. Madhya Pradesh ke arthik vikas mein agrani bank yojana ke bhumi. Guna Jile ke vishesh sandarbh mein. Jiwa. Dr S N Chaturvedi, Department of Economics, Govt S L P College, Morar.

2. Babu Reddy, Tadimarri. Causes and consequences of rural-urban migration: A study in Anantapur, Andhra Pradesh. Andhra.

3. Basak, Nandita. Aspects of growth of an industrial town: A regional perspective: Case study of Durgapur, West Bengal. Calcutta.

4. Bhatle, Om Prakash. Gwalior van-mandal mein vatsampada ke ek arthik adhyayan. Jiwa. Dr S S Sengar, Department of Economics, Govt College, Jaura, Murena.

5. Bhaumik, Sarmila. India's export trade during the plan period, 1951-1985: Growth, problems and prospects. Calcutta.

6. Choube, Rajeev. Madhya Pradesh ke Vidisha evam Raisen Jilon ke arthvyavastha mein krishi adharit udyogon ke yogan. Barkatullah.

7. Esmat Abou El-Ella Mohamed. Productivity and efficiency of the formal educational structure, trends and prospects: A case study of Egypt during 1976-86. Jamia. Dr Khan Masood Ahmad, Department of Economics, Jamia Millia Islamia, New Delhi and Dr J B G Tilak, National Institute of Educational Planning and Administration, New Delhi.

8. Gauria, Kusum. Garhwal ke krishi arthvyavastha mein mahilayon ke yogan. Garhwal. Dr Anjali Babuguna.

9. Gautam, Raj Kumar. Madhya Pradesh mein Mandala Jile ke van sampada ke vishleshanatmak adhyayan. Durgavati. Dr V P Karwal, Keserwan College, Jabalpur.

10. Goel, Sangita. Capital structure and resource use efficiency of sugarcane based farming in Saharanpur District of Western UP. Roorkee.

11. Gupta, Gaurishankar. Gwalior Sambhag ke Ditiya Mandal mein arthik aparadhaon ke vishleshanatmak adhyayan, 1983-1989. Jiwa.

Dr N M Lal, Principal, Govt Degree College, Balaji Mohana, Bhind.

12. Gupta, R C. Jhansi Janpad mein Harijan samudaya ke garibi ke samasyaon ke arthik avalehan. Bundelkhand. Dr A P Srivastava, Bundelkhand University, Jhansi.

13. Gupta, Suman. Ujjain Jile ke vadyogik vikas mein vyavasyik bankon ke vitya yogan. Vikram. Dr Sharada Shinde, Department of Economics, Govt Arts and Commerce College, Ratlam.

14. Krishna Rao, Pessa. Cooperatives and agricultural credit: A case study of Vishakhapatnam District, Andhra Pradesh. Andhra.

15. Narasimha Moorthy, Upadhyayula. 'SAARC-ASEAN economic integration: A strategic imperative for expansion of collective self-reliance. Andhra.

16. Ninawe, Anandrao Balaji. A socio-economic study of forest villages in Nagpur District, 1971 to 1981. Nagpur. Dr D G Pawar, Department of Economics, V N Institute of Arts and Social Sciences, Nagpur.

17. Panduranga Reddy, J. Identification of backward regions: A study of regional disparities in AP. Osmania.

18. Parida, Subhas Chandra. Personnel profession in India: A study of its past, present and future. Berhampur. Dr G C Patro, Reader, Department of Industrial Relations and Personnel Management, Berhampur University, Berhampur and Dr B P Rath, Reader, Department of Industrial Relations and Personnel Management, Berhampur University, Berhampur.

19. Ruprah, Gursaran. Bank finance to small and marginal farmers: A case study of selected house holds in Jabalpur District. Durgavati. Dr (Smt) Deoki Nair, Principal, Govt College, Ambikapur.

20. Sanjeeva Reddy, P. Productivity and efficiency under different sources of irrigation: A case study of Telangana Region of AP. Osmania.

21. Satyanarayana Reddy, M. Distribution of Government wastelands programme: An evaluation; a case study of Mahboob Nagar District of AP. Osmania.

22. Sekar, Hemavathi. Evaluation of benefits to the community from housing programmes for economically weaker sections. Anna.

23. Sharma, Sunder Prasad. Agricultural planning in India: A critical evaluation. Magadh.

24. Shroff, Laxmidas. Madhya Pradesh ke advasiyon ke arthik samasyaon ke Nimar Jile ke vishesh sandarbh mein vishleshanatmak adhyayan. Barkatullah.

25. Soundaram, S V. Assessment of agricultural production potential: A case study. Anna.

26. Venkataravi, R. Economic aspects of sericulture in Dharwad District of Tamil Nadu. Bharathidasan. Dr C Thanigamuthu, Prof and Head, Department of Economics, Bharathidasan University, Trichy.

27. Vijaya Kumar, K S. Land reform: Productivity employment and income change. Bangalore. Dr T Srivenkataramana, Head, Department of Statistics, Bangalore University, Bangalore.

Law

1. Chhabra, Sunil. Constitutional philosophy of legal aid in India: An empirical study of the administration of legal aid to the weaker sections of the society in the State of Himachal Pradesh HP.

2. Kamal Jeet Singh. Constitutional philosophy of distributive justice: A socio legal study. HP.

3. Mohamed Azmatulla. Offences under labour enactments: A critical study of their economic cost and consequences. Osmania.

4. Om Prakash. Tribunalisation of justice in India: A study of growth and development of service tribunals. IIP.

Public Administration

1. Shah, Shamsuddin Jamaluddin Takiya Masoom. Problems in the administration of the Drugs and Cosmetics Act, 1940 with special reference to a private and a public sector of Nagpur. Nagpur. Dr S L Dave, Head, Department of Public Administration and Local Self Government, Nagpur University, Nagpur.

Education

1. Bannuraju, G P. Individual need strength, locus of control and job involvement in relation to job satisfaction and performance of teachers in secondary schools of Bangalore City. Bangalore. Dr D S Shivananda, Principal, Sri Sarvajna College of Education, Bangalore.
2. Biswal, Premnanda. Vocationalization of education at the +2 stage in Himachal Pradesh: An evaluative study. HP.
3. Gautam, Shashi Bala. Development of creative thinking and leadership among Navodaya Vidyalaya students. HP.
4. Gill, Jagtar Singh. Alterations in C-P Index body composition and anaerobic capacity as a result of similar training programme in males and females. Jiwaji. Dr B S Brar, Laxmibai National College of Physical Education, Gwalior.
5. Gupta, Anita. A study of deviant students in relation to personality variables. Jammu. Dr Aruna Suri, Prof, Department of Education, University of Jammu, Jammu.
6. Hymavathi. Evolving a teaching model for developing the effective aspects of children as envisaged in national policy on education, 1986. Osmania.
7. Kakkar, Usha. History and survey of women education in Bundelkhand. Bundelkhand. Dr R P Pandey, Bundelkhand Degree College, Jhansi.
8. Loea. Development of an approach to teach English vocabulary to students of non-English medium. Osmania.
9. Mubark Singh. Evaluation of role of colleges and university of Northern Zone in implementing adult education programme. Jammu. Dr Lokesh Verma, Lecturer, Department of Education, University of Jammu, Jammu and Dr N R Sharma.
10. Nautiyal, Anil Kumar. The efficiency of teacher performance as related to their values, effectiveness, morale and students perceived teacher characteristics. Garhwal. Dr G S Aswal.
11. Panda, Pramod Kumar. A study of the composite effect of a package of certain curricular strategies on selected cognitive and non-cognitive characteristics of rural primary school students of Orissa. HP.
12. Purushottam Bhatt, Kokilaben. An investigation into creativity development by increasing thinking process through reading comprehension in Gujarati pupils of class VII in relation to certain variables. Patel.
13. Rema, M. A comparative study of the educational thoughts of Swami Vivekananda and Mahatma Gandhi. Calicut. Dr S Rajappan Nair, Vaisakh, Pandit Colony, Kowdiar, Trivandrum and Dr R Sukumaran Nair, Hony Director, Teacher Education Centre, Barton Hill, Trivandrum.
14. Shailaja Kutty, P R. Influence of selected anthropometric measurements and body types on selected track and field events. Jiwaji. Dr Jayant Mukerji, Laxmibai National College of Physical Education, Gwalior.
15. Sharma, Suresh Kumar. Development of predictive battery of tests for scientific aptitude for the students in eleventh class. Jammu. Dr S P Suri, Prof, Department of Education, University of Jammu, Jammu.
16. Subhash, B. Effect of disequilibrium equilibration model of teaching Biology on achievement and cognitive development of higher secondary students. Kerala. Dr K R Sivadasan, Prof, Department of Education, University of Kerala, Thiruvananthapuram.
17. Uniyal, B P. A study of students activism in relation to psycho-social characteristics of graduate students. Garhwal. Dr G S Aswal.
18. Usha, H B. Language development in primary school entrants. Mysore.
19. Vajpayee, Amod Prakash. A study of B Ed pupil teachers communication skills with respect to teaching success, vocational anxiety and students achievement. Barkatullah.
20. Varghese, V J. Folk-arts as a medium for nonformal education. Kerala. Dr N Vedamani Manuel, Director, C E R I D, Mitraniketan, Velland, Thiruvananthapuram.
21. Verma, Sudesh Bala. Trend analysis of educational growth at school stage in Jammu and Kashmir State for the years 1990-2010 and estimation of requirements. Jammu. Dr (Mrs) Meenakshi Chopra, Reader, Department of Education, University of Jammu, Jammu.
22. Walla, Kiran. Secondary teacher education programmes in North India: An evaluative study. Jammu. Prof Mohd Miyan, Department of Foundation of Education, Jamia Millia Islamia, New Delhi.

Commerce

1. Aggarwal, Santosh Kumar. Gramin samachit jati mey ke arthik unyama mele gramin vikas karyakarmen ke bhumika. Bundelkhand. Dr Shriram Aggarwal, Reader, Department of Rural Development and Cooperation, Bundelkhand University, Jhansi.
2. Aggarwal, Satish Kumar. Madhya Pradesh Rajya Sadak Parivahan Nigam ke talukmatmak vittiya samadhan. Ghazidag. Shri J K Aggarwal, G-4, Shanti Sikara Apartment, Rajbhawan Road, Sonajigada, Hyderabad.
3. Aggarwal, Swatantra Kumar. The effect of rural electrification on rural development. Bundelkhand. Dr Shriram Aggarwal, Reader, Department of Rural Development and Cooperation, Bundelkhand University, Jhansi.
4. Anand Ballabh. Uttar Pradesh ke laghu adyogon ke vittiya vyavastha ke vishleshnatmak adhyayan: Garhwal mandal ke vishesh sandarbh mein. Garhwal. Dr R R Nautiyal.
5. Arundeeep Singh. The role of cooperative sector in rural financing with special reference to UP State Cooperative Land Development Bank Ltd. Garhwal. Dr H P Pandey.
6. Ashok Kumar. Role of small scale industries in the development of Garhwal. Garhwal. Prof K S Negi.
7. Balbir Singh. International Bank for Reconstruction and Development and its role in the economic development of India. Garhwal. Dr J S Bhatt.
8. Dagar, Inder Jeet. Managerial perspectives of the personnel problems in electronics industry in the small scale sector in the U T of Delhi. Jammu. Dr M Mustafa, Lecturer, Department of Commerce, Jamia Millia Islamia, New Delhi.
9. Gujarathi, Ajay. Madhya Pradesh ke vikas mein Laghu Udyog Seva Samsthan ke bhumika: Ek arthik vishleshan. Devi Ahilya. Dr S R Sondhi, 152, Radio Colony, Indore.
10. Kale, Ajay. Madhya Pradesh rajya utpadan shulk: Ek vishleshnatmak adhyayan. Devi Ahilya. Dr B S Bhandari, Principal, Shri Cloth Market Kanya Commerce College, Indore.
11. Khan, Mohammed Altaf. Problems of recovery of priority sector finance in the State of Orissa: A case study of State Bank of India. Berhampur. Prof P K Sahu, Department of Commerce, Berhampur University, Berhampur and Prof Jagannath Panda, Department of Commerce, Berhampur University, Berhampur.
12. Khan, Mohd Tufail. Export performance of spices since Third Five Year Plan. AMU. Dr B A Iqbal, Reader, Department of Commerce, Aligarh Muslim University, Aligarh.
13. Mishra, Chhaya Mangal. Madhya Pradesh mein audyogikaran ke marg ke samasyaen: Pithampur ke vishesh sandarbh mein. Devi Ahilya. Dr S S Talreja, Prof, Department of Commerce, Govt Arts and Commerce College, Indore.
14. Mohammad Abul Hasnat. Role of nationalised banks in the development of small scale industries in Patna. Patna. Dr P N Sharma, Principal, Vanija Mahavidyalaya, Patna.
15. Panigrahy, Dibakar. Cash flow of ginger of corporate health and signaller of sickness. Berhampur. Prof P K Sahu, Department of Commerce, Berhampur University, Berhampur.
16. Purohit, D N. Madhya Pradesh mein sayabeen ke vipadan. Devi Ahilya. Dr P L Rathore, Department of Commerce, Indore Christian College, Indore.
17. Raj, Arpana. Industrial relation in public sector enterprises in India: A special study of public sector units in Naini, Allahabad. Bundelkhand. Dr D C Aggarwal, Bundelkhand College, Jhansi.
18. Satyanarayana, S V. CAG: Public enterprise interface. Osmania.
19. Seetharaman, K S. Performance analysis of a regional rural bank in a backward district: A case study of Adhyaman Grama Bank. Bharathidasan. Dr A N Rajamani, 100/B First Floor, Gandhi Road, Srirangam, Trichy.
20. Sharma, Sita Ram. Role of cooperative banking in financing agriculture in Jammu and Kashmir. Jammu. Dr N S Gupta, Prof,

Department of Commerce, University of Jammu, Jammu and Dr R D Sharma, Reader, Department of Commerce, University of Jammu, Jammu.

21. Subhashini, M. Marketing of handloom products: A case study of Andhra Pradesh Handloom Weavers Co-Operative Society Ltd, APCCO, Gulbarga. Dr K V Prabhakar, Chairman, Department of Commerce, Gulbarga University, Gulbarga.

22. Tinkar, Sharmila. Product dissonance, consumer opinion of Indian marketing and a comparison of consumer laws of some countries. Garhwal. Dr Alok Sekani.

Home Science

1. Gandotra, Anuradha. Nutritional profile of rural pre school children living in Jammu Province. Jammu. Dr J S Jarwal, Prof, Department of Home Science, University of Jammu, Jammu.

2. Ghadekar, Rajani Subhash. Effectiveness of teaching aid oriented technique with special reference to housing at under graduate level in the Nagpur University. Nagpur. Prof (Mrs) R S Patwardhan, Head, Department of Home Science, Nagpur University, Nagpur.

3. Singh, Reetam. Jhansi ke parvathinik aur musari mahila shikshakayon ke samajik arthik sthiti. Jiwaji. Dr G D Gambhir, Department of Economics, M L B Art and Commerce College, Gwalior.

4. Sinha, Neelima Dilipsingh. Prolonged deprivation: Its effect on some mental abilities and self insight of secondary and higher secondary school children. Nagpur. Dr D S Jambhandhu, Institute of Arts and Social Sciences, Nagpur.

Management

1. Chandra Sekharan, C. Managerial styles in select organisations in India. Delhi.

2. Chaturay, Nishikant Narayanrao. A study of the objectives and performance of Maharashtra Small Scale Industries Development Corporation Limited. Nagpur. Dr S N Bodhankar, Department of Commerce, C P Bazar Education Society's College, Nagpur.

3. John, Isaac. Impact of managerial styles on workers and its effect on productivity. Nagpur. Dr V S Shenwai, Prof, S B City College, Nagpur.

4. Nagender, T. Regulated markets in Telangana. Orissa.

5. Siriya, Pratibha M. A critical study of Unit Trust of India, 1964-1984. Nagpur. Dr G G Fukey, Department of Management Studies and Research, Dhanwate National College, Nagpur.

6. Thillainayagam, N. A study of man-power resource inventory for rural development in Kollam District, Nagaland. Gandhigram. Dr M Aram, President, Shanti Ashram, P-17, Kovaipudur, Coimbatore.

EDUCATION NEWS INDEX

A list of select articles and editorials on education from newspapers received in the
AIU Library during February 1993

EDUCATIONAL PHILOSOPHY

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Lalit Kumar. Gandhi's idea of 'true education'. Patriot 2.2.93.

EDUCATIONAL PSYCHOLOGY

Fernandez, Mary Dorothy. Education. The crucial years. The Hindu 9.2.93.

Ganesan, Lalitha. Ability differs from person to person. The Hindu 2.2.93.

Ward, Fredrick. To create confidence, IQ test culture must be redefined. The Pioneer 2.2.93.

EDUCATIONAL SOCIOLOGY

Ahmed, Firoz Bakht. Urdu schools create ghettos of the mind? The Pioneer 2.2.93.

Amrik Singh. From Jamia to Ayodhya. The Hindustan Times 22.2.93.

BACKWARD AND forward (Editorial). The Times of India 3.2.93.

FIRST STEP on Mandal report (Editorial). The Tribune 3.2.93.

MANDAL TANGLE (Editorial). The Times of India 25.2.93.

Pai, R M. Mandal: The coin has one side...? The Hindu 8.2.93.

Rajagopalachari, J. Some thoughts on reservation. The Hindu 9.2.93.

Singhvi, Abhishek. Mandal verdict. A mixed bag. The Hindustan Times 16.2.93.

SKIMMING OFF the cream (Editorial). Patriot 5.2.93.

UNEMPLOYMENT: Sex discrimination (Editorial). The Hindustan Times 25.2.93.

EDUCATIONAL POLICY & PLANNING

Balachander, K K. Education: a neglected industry. Free Press Journal 28.2.93.

GETTING THE new policy working (Editorial). The Hindu 12.2.93.

TAKEN AS read (Editorial). The Statesman 25.2.93.

EDUCATIONAL ADMINISTRATION

Amrik Singh. Capitation punishment. Deccan Herald 27.2.93.
Stronger UGC can set Bihar right. The Times of India 12.2.93.

Arulandram, H G S. Universities as centres of excellence. The Hindu 2.2.93.

Bal Krishna. Blow to capitation fee concept. The Hindustan Times 8.2.93.

Devy, G N. Colleges must fend for themselves. The Times of India 26.2.93.

Delinking teaching from exams. The Times of India 5.2.93.

EQUALITY AND education (Editorial). The Hindustan Times 6.2.93.

FLOP OF a scheme (Editorial). The Hindustan Times 16.2.93.

FUNDAMENTAL RIGHT to learn (Editorial). The Times of India 6.2.93.

Ghosh, Tirthankar. Varities where lecturers are daily wagers. The Hindustan Times 22.2.93.

Gopalakrishnan, S. Decision-making process in higher education. The Hindu 2.2.93.

HISTORIC JUDGMENT (Editorial). Free Press Journal 8.2.93.

Kedar Shankar, S. Small gains, big losses. Deccan Herald 27.2.93.

Khanna, S K. Which way higher education? National Herald 20.2.93.

LANDMARK JUDGMENT (Editorial). Indian Express 6.2.93.

LANDMARK VERDICT (Editorial). National Herald 6.2.93.

Madhava Menon, N R. Towards social justice with professional excellence. Deccan Herald 15.2.93.

Mahajan, Krishan. Doublespeak by Supreme Court. Indian Express 6.2.93.

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